

VOL. XVIII.

ST. LOUIS, MO., NOVEMBER 1, 1866.

NUMBER 21.

PUBLISHED BY NORMAN J. COLMAN,
EDITOR AND PROPRIETOR, 97 Chestnut Street,
St. Louis, Mo.

Special Contributors for 1866

DR. E. S. HULL,
WILLIAM MUIR,
CAREW SANDERS,
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COLMAN'S RURAL WORLD,

Is devoted to the promotion of the
AGRICULTURAL, HORTICULTURAL AND STOCK
INTERESTS OF THE VALLEY OF THE MISSISSIPPI.
It is issued on the 1st and 15th of every month, in
quarto form, each number containing 16 pages, mak-
ing a volume of 384 pages yearly. Terms—\$2.00 per
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two insertions, \$15, and \$6 for every additional in-
sertion. These rates will be strictly adhered to.

Soils and Manures for Wheat.

Wheat, above all other crops, requires a dry
soil, consequently land drainage is of the ut-
most importance in wheat cultivation. Spring
crops are generally put in after the spring rain
has disappeared, and when the soil is compara-
tively dry; but winter wheat must remain in
the soil during the heavy rains of the fall—the
frosts of winter, and the alternate thaws and
freezings of early spring. After these come the
spring rains and the overflowing of water pro-
duced by the melting snow. Great precaution
is necessary in order to protect this crop from
destruction from stagnant water in fall and
spring. There is scarcely any field so com-
pletely level as not to afford a sufficient fall
for carrying off the water; this should be ta-
ken advantage of, and if no other mode of
drainage has been adopted, surface drains
should be made through all portions of the field
where there is the least probability that water
will lodge.

Much wheat is lost annually by being heaved
up by the frost. This seldom happens except
in light soils which have been exhausted by fre-

quent cropping and lack that cohesiveness and
strength which the wheat plant requires.—
Shallow plowing is also a cause of this failure.
Land which has been drained and sub-soiled,
is not subject to heaving, as the soil, having
been deepened and the stagnant water removed,
the roots of the wheat are enabled to strike
deep, and to fix the plants firmly in the soil.
It is a well known fact, that although the ma-
jority of the roots of wheat are found near the
surface, certain others (if the soil admits of their
doing so) penetrate deep into the earth in order
to take a firm hold of the ground and to draw
up the food of the plants.

Heavy, clay lands have been denominated
wheat soils, yet excellent crops may be raised
on light, sandy soil, if suitable manure has
been applied. Previous to the introduction of
the turnip into the husbandry of Great Britain,
stiff clay soil was alone thought suitable for
the production of wheat, and fallowing was the
order of the day; but the turnip has caused a
revolution in the British system of husbandry.
Naked fallows have disappeared; green crops
supply their place; a regular and judicious
system of rotation has been established, and
soils so light as to bear the denomination of
"blowing sands," have been consolidated and
fertilized.

Wheat delights in new soil, but it is neces-
sary that the roots of the grasses, etc., should
be thoroughly decomposed in order to prevent
their growth, and also to furnish food for the
young wheat plants. Land that has been for
some time in tillage and then laid down in
good heart and allowed to remain for a series
of years in grass, will produce a better crop of
wheat than wild soil—that is soil that has never
produced a cultivated crop. Manures which
abound in nitrogen are best suited for wheat.
Professor Johnston proved this by experiments
which are recorded in his Lectures on Agri-
cultural Chemistry. If we take a wheat plant
and examine the composition of the flour it
contains, as raised from the application of dif-
ferent manures, it will be found that its gluten,
which contains a large per-centage of nitrogen,
is invariably increased by the increased pro-
portion of nitrogen in the manure.

We may understand the properties of a cer-
tain manure, and yet not be able to apply it
properly. If we make use of an abundance of
ammoniacal manure, the stem and leaves of the
wheat plant will become so large and succulent
that the roots will not be able to support them,
and they will fall down and fail to produce a
crop; we must remedy this evil by making use
of a manure that will give strength to the stem
and weight to the grain.

It has been demonstrated by numerous analy-
ses that silica predominates in the straw of
of wheat, and that potash and phosphoric acid
exist in the grain, and a certain portion of
lime in both straw and grain. It is evident that
the soluble silica which is absorbed by the
straw should be given back to the soil, by turn-
ing the straw into manure instead of selling it
in the market.

Wood ashes contain a large proportion of
potash, and consequently are an excellent ma-
nure for wheat, or any other crop in which pot-
ash abounds. If all the ashes that are made in
the house and on the farm were carefully col-
lected, mixed with muck, and spread over the
wheat crop, a large increase in the acreable
product would be the result.

Lime imparts health and vigor to the stem
and grain, and a portion of it should be applied
to land intended for wheat. It assists in dis-
solving silica and the phosphates—counteracts
the effects of certain acids, and in various ways
improves the growth of the wheat plant. A
small quantity of lime mixed with muck or
rich soil, will have a much better effect as ma-
nure than a much larger quantity applied with-
out the addition of any other substance. Prof.
Johnston says: "Lime acts in two ways on
the soil. It produces a mechanical alteration,
which is simple and easily understood; but it
is the cause of chemical changes which are
really obscure, and are as yet susceptible of only
partial explanation."

Salt is a valuable manure for the wheat
plant, and a portion of it should always be ap-
plied, either directly to the soil or as top-dress-
ing to the young crop. Lime and salt hasten
the decay of weeds and vegetables in a greater
degree than either of these manures taken sin-

gly. Liebig says: "Common salt enables the plant to extract sulphur from the ground, where it has existed as sulphate of lime."—The grain of the cereal crops is much improved in size and color by the judicious application of salt. It acts well in conjunction with ammoniacal manures, the salt giving strength and solidity to the grain, while the size and luxuriance of the plant are increased by the ammonia. Immense crops of wheat have been produced by using a manure composed of salt and barn-yard dung.

Bones are a valuable manure for wheat, as they contain a large per-centage of phosphoric acid, an ingredient which forms a considerable part of the grain of wheat and other cereals. Bones should be carefully collected, broken into small pieces with a heavy hammer, and covered with wood ashes in barrels or boxes. In a few months the ashes will corrode the bones so much that they can be crumbled into fragments, and these, being thoroughly mixed with the ashes, can be easily spread over the wheat field. Bones may be ground into dust in bone-mills, or dissolved into a pulp by steeping them in sulphuric acid; but as neither the mills nor the acid may be available at all times, we suggest the wood-ashes plan as best suited to the farmer. Bones are generally allowed to go to waste, although with very little labor they might be applied with good results to wheat and other crops.

There are other manures, such as guano, plaster, &c., which are well adapted for increasing the acreable product of wheat, but space does not permit of more than an allusion to them at present. The tillage of land for wheat may be perfect, but if the soil does not contain all the ingredients necessary for building up the straw and forming the grain, they must be supplied in the shape of manure, or a full crop will not be obtained.—*Western Rural*.

THE MULE.

In this animal we have a valuable compound, possessing the hardiness of the ass, with the energy and activity of the horse. Incapable of re-production or breeding, its consideration may not properly belong here, and it will therefore receive only a brief notice. From its sterility, it is only valuable as an animal of labor, and especially as a substitute for the horse in warm climates. Contrasted with the horse, in reference to its use in this respect, we find he has many advantages, and among them may be found the following:

1st. His superior strength, both in drawing and carrying heavy burdens. 2d. His comparative freedom from disease and accident, as contrasted with the horse. 3d. His endurance of a temperature which would destroy that animal.

Among the economical advantages may be mentioned the amount of food consumed by him, as being less than that necessary for the horse. On this point an eminent writer says "Although a large-sized mule will consume somewhat more than half the food necessary for the horse, yet if we take into account the saving of expense in shoeing, farriary, and in-

surance against disease and accident, we may safely affirm that a clear saving of one-half can be substantiated."

The second, and perhaps greater economical advantage, lies in his superior longevity. Mr. Oliver, to whom allusion has already been made, informs us that he saw, in the West Indies, a mule performing his task, "that he was assured by the owner was forty years old, and that he himself owns a mare mule twenty five years old, which has been at work twenty-one years, and that he discovered no diminution in her powers, and within a year past he has often taken upwards of a ton's weight in a wagon to Boston, a distance of more than five miles."

These considerations have greatly increased the use of mules on the sugar, rice and cotton plantations of the South, and have consequently resulted in their increased multiplication in Kentucky, where, in 1850, there were of asses and mules 65,000. This increased demand, coupled with a better acquaintance with the principles of breeding and rearing an animal much more desirable than those raised formerly, has, within the past ten years, given to the breeder an advance of more than one-half in the value of his stock, besides curtailing the expense incident to one year's feed.

As regards the kinds of mares to be used in the production of the best mules, I have but to endorse the views briefly expressed in the following quotation:

"They should be large size, well made, young, full of life, large-barreled but small-limbed, with a moderate-sized head and good forehead."—*Louisville Gazette*.

TILLERING OF RYE.—Mr. A. H. Maxwell, Palmer, Mass., states that he now has in his shop a stool of rye containing sixty-one stalks, all of which sprang from one kernel, the average length of which is five feet and two inches. The average number of kernels per head was sixty. This is 3,660 fold.

Mr. Vanriper, Hackensack, N. J., told us that he raised a stool of rye having over seventy stalks, all of which sprang from one grain of rye. These instances show how extensively wheat and rye plants will tiller when the soil is rich and the seed deposited a good distance apart. But few plants have the habit of tillering so extensively as wheat and rye, even when a single kernel is planted in an area of ground sufficiently large to admit of tillering to its greatest extent. This habit of tillering may be advantageous when producing new varieties of grain, as the kernels can be planted far apart, and thus be made to yield more than if planted near each other.

RAISING AND SAVING CLOVER SEED.—First prepare your ground well. Have it clean and mellow. Sow early and heavily, and do not pasture much. Sow plaster early, and cut your hay very early. Watch your seed; pass through the field often as it begins to ripen, and rub the heads in your hand; if there is not much seed, you had better cut it for hay, as it will make first-rate hay; but if you find from twenty to forty seeds in a head, or more, it will do to save for seed.

Do not cut too early, for some of the heads may not be ripe—nor too late, as some of the ripe seed will fall off and be lost. If cut with a mower, have a platform and gather it as you cut, if possible. In gathering it, use no kind of rake, horse or hand, but do it carefully with the fork. As soon as it is dry, draw, and if stacked, it must be done with the greatest care, and be well covered with fine hay, straw or boards.

THE MANURE HEAP.

The farms about Zurich, in Switzerland, are very small, but the soil is made to produce to the utmost of its capacity from the manure heap, which is the agriculturist's wealth, the art of converting it, particle by particle, into gold. The manure heap is the first thing that attracted the attention on passing a farm house, because it is made with much care and so peculiarly, and because it is near the house in the shade of some elms. A shade it must necessarily have,—it is said, from the principle on which it is constructed; and if it were near the stable, it must be near the house, as they are in close continuity. It is appointed to receive all the waste liquids of the house, as well as the barn. If there are no trees in the right place, or right size, they plant them, not to beautify, but to shield this most important portion of their treasures. A pit is made some two or three feet deep, walled tight with stones, slates or boards. Beams are placed across, covered with branches of trees, as a grating; so that when the manure is placed thereon, the fluids drain through and they leave the solids dry above. The stable, where the cattle stand, has a floor of plates of stone or boards, with gravel in front, that they may lie down and get up without slipping. Between them and the wall is a drain from 10 to 15 inches wide, which connects with the reservoir without. There are also two or three ditches or pits into which the manure is first thrown from the stables, in order to be moistened with water, and then placed upon the heap, or, if thrown directly upon it, it is often wet in order to cause fermentation and decay, and to enrich the fluid beneath, made accessible through an opening at one corner, and dipped out with a long-handled pail or ladle. One sees everywhere women and children watering gardens and fields of vegetables with this liquid manure. The sink drains from the house connect with this reservoir, and farmers often build them near towns and cities, to gather the treasures, which are to them invaluable, and would otherwise do no man any good, but occasion harm. This is the secret of their agriculture, and explains how so many people can live on so small a space. Red clover often furnishes 4 and 6 mowings a year, and the grasses are alike productive.—*Ex.*

THUMPS IN HOGS.—A correspondent of the Madison County, Ohio, *Union* says: One tablespoonful of copperas at a feed to every ten shoats given three or four times a week, will both prevent and cure thumps in hogs. The copperas should be dissolved in a small quantity of warm water and then mixed with the slop or feed.

CARROTS FOR HORSES.—Wash the roots clean, and feed about four quarts at once, in addition to oats, or cut feed and hay. There is no danger of feeding a horse too much of either turnips or carrots, provided he receives a good feeding of oats and hay also. The tendency of carrots is to keep the bowels loose. If a horse was required to subsist almost entirely on carrots, his strength would fail, and a large quantity of such green feed might give him the scours. Carrots should be fed in connection with dry feed.

Soiling, or House-Feeding Cattle.

The practice of house-feeding stock has not yet been well established in this country, we say *not yet*, because we are convinced that it will obtain favor and be extensively adopted after the lapse of a few years. The scarcity of succulent food for stock during protracted drouth has again and again been the cause of great loss to the farmer; as the horses, cattle and sheep, have nothing but bare, parched pastures to depend on in the fall, become low in condition and are not well able to withstand the rigors of winter, coming out very weak in the spring. In fact the scarcity of grass and the want of green food in the fall, has the effect of stunting the growth of young stock, and keeping those which are full-grown in a weakly condition all through the year. What a contrast there is between the stock on a farm where soiling is practiced and those on one where the old system, of depending solely on pasture, is still continued. House-feeding has many recommendations, and when farmers become made up to it, they will not give it up for any consideration. It is said that "the owner's eye fattens the beast" and a great advantage attending the soiling system, is that the stock are continually under the eye of the owner or manager. Then the large quantity of excellent manure which is obtained from house-feeding animals is in itself a great recommendation. It is well known that the quality of the manure obtained from animals fed on rich, succulent food, is vastly superior to that which is made by those fed on dry forage, such as straw, hay or corn-stalks. This is so well understood in countries where the improved systems of agriculture are practiced, that rape-cake is sometimes given to stock, merely for the purpose of enriching the manure, this substance having a most extraordinary effect in making manure valuable for green crops.

Along with large quantities of solid manure, a great deal of liquid is produced by cattle fed on green food, and this, when collected in a tank, is extremely valuable for applying to grass land, growing crops of vegetables such as cabbages, beets, parsnips, carrots, etc., or for saturating muck or compost of any kind. Barn-yard manure may be greatly improved by repeated drenchings of liquid from the tank, which will keep it moist, enrich it considerably and prevent fire-lung.

Farmers who have large tracts of land and plenty of pasture and meadow, and whose tillage fields yield abundant crops without manure, laugh at the idea of house-feeding cattle, and they go on from year to year exhausting the soil, until the pasture and meadow fail, and the tillage fields become unproductive except in weeds and injurious insects. It is then that the value of soiling stock, and returning compensation to the lands for the ingredients which have been absorbed by the crops, become evident; but the discovery is generally made when it is almost too late to rectify the mistake, at least too late for their benefit, for the renovation of worn-out soil is generally a slow process. It is much better and cheaper in the long run, to keep the soil in good heart by manuring at proper intervals and establishing a regular rotation of crops, than to go on sowing cereal crops until the land becomes too poor for grass or tillage.

Rye is valuable forage for stock, for not only does it yield good pasturage in the fall, when ordinary pastures are parched and worthless, but it affords a large quantity of soiling in the spring, or rather in the early part of summer. At this time the plants being green and succulent, cattle and horses eat them with avidity; but when the straw approaches ripeness, it becomes dry and hard and is rejected by stock. That which remains after spring-feeding should be allowed to ripen, as at a certain state of growth it is useless as forage. A field of red clover yields an immense supply of green food

which is very much relished by stock; it makes a good succession after the rye, and like it should be used before it becomes too ripe for green food. Clover is very nutritious, containing nearly everything that is wanted for the growth and sustenance of an animal. The flesh and fat-forming constituents are large, and phosphate of lime for the formation of bone predominates. It is not a *scouring* crop because the long tap-roots force their way deeply into the subsoil, the fibrous roots collect nutriment from the surface, and the loose, fleshy leaves absorb such constituents as the air affords. When sold as hay, clover removes many valuable ingredients from the soil, which are in a great measure compensated for by plowing in the roots as manure; but when consumed as green food on the farm, and the manure returned to the soil, it becomes a fertilizing crop.

Cornstalks and leaves, when cut green, make good, nutritious food for cattle. By preparing the soil well and sowing broadcast about four bushels to the acre, thirty tons of cornstalks have been obtained from a single acre. From this it will be seen that a large amount of soiling may be procured from a small piece of ground. Cornstalks come in succession after clover, and if all cannot be consumed as green food, they should be cut in proper time and carefully saved for fodder. When a corn crop is raised for the grain, the stalks are generally too ripe for fodder before the crop is harvested; but when it is intended for fodder only, it ought to be cut while the nutritious juices are in it. Vetches are very much used in Europe as soiling for horses and cattle. They yield abundantly, covering the ground with a thick mat of vines from two to three feet high. The spring varieties will no doubt do well in this country. An European farmer has generally four or five different sowings of them, so as to keep up a succession for his stock. In the same field may sometimes be seen vetches fit to cut, and others just peeping over the surface, and the various gradations between these extremes.

It is a well established fact that the practice of feeding stock in summer with green food, cut daily and given to them in stalls or yards, is far preferable to grazing—first because the food is consumed with less waste—second, because rest is to a certain degree an equivalent for food. In the pasture stock do not remain stationary, they are constantly moving about, trampling the herbage, and are wasting in proportion to the amount of exercise they take. To make up for this waste an additional quantity of forage must be taken in, which is not needed when they are at rest, and consequently, by the system of soiling, less food will be required to fatten them. Thirdly, by soiling, there is an increase of valuable manure which in pasturing is nearly lost; and Fourthly, the stock are shaded from the rays of the sun and saved from the annoyance of flies. It is true that soiling is much more suitable to some farms than others. Rich, productive pasture land will always be valuable, but on soils that require to be broken up and manured frequently, the growing of green crops and house-feeding of stock will be of the utmost importance.

In soiling stock of any kind care should be taken lest the green food produce derangement of the bowels. Looseness should be corrected by changing the diet, giving hay instead. Cows in calf should not receive much green food, as it generally has an unfavorable effect on the calves, producing a tendency to diarrhoea which is sometimes destructive to them. A supply of green food should always be provided for milch cows in the fall, as the pastures sometimes become so parched as to yield very little nourishment, and a decrease in milk is the consequence. Sheep fall away very much when they have nothing to depend on in the fall but a bare and parched pasture. The dried herbage which they pick up sometimes causes obstruction in the intestines, and produces a fatal disease

called the "stretches." A field of rye will make a splendid pasture for sheep in the fall.

TOBACCO FOR SCAB IN SHEEP.

A correspondent of the *Prairie Farmer* makes the following statement of his experience in treating the scab:

"Having some 300 sheep which were troubled with scab, it was a question to which I could find no answer, as to how much tobacco it would be necessary to use in order to cure them. At a venture, I procured 200 pounds at a cost of 12½ cents a pound. I took the sheet iron bottom of an old sugar evaporator and put in from 16 to 18 pounds of tobacco, and filled it within two inches of the top, and put the boiled tobacco into a barrel with a hole near the bottom, to drain off the solution after soaking, and put water after soaking in the next batch. I found that each batch would dip from 22 to 28 sheep, if not wasted. My box for dipping, was made of 1½ inch boards, 16 inches wide and 4 feet long. The bottom was sunk in the ground. Then with matched flooring made a tight platform as wide as the box was long, and put one end over the box, the other being elevated so that the juice would run back into the box as it was squeezed out of the wool. Used the solution milk-warm. My sheep are all well."

DOGS AND SHEEP BELLS.—An experienced breeder of sheep says, that a number of sheep in any flock wearing bells will keep away dogs. He allows ten bell sheep to every hundred. When sheep are alarmed, they run together in a compact body, and the ringing of all the bells frightens the dogs. In Great Britain and Ireland bells are used by almost every owner of sheep. They are useful for keeping off dogs and foxes, the latter being very destructive to lambs in places where this precaution is not taken.

GESTATION OF ANIMALS.—M. Tessier, who, for a period of many years, was Superintendent of the Experimental Farm, established under the auspices of the French Government, at Paris, found that of 582 mares, the shortest period was 287, and the longest 419 days—exhibiting the surprising difference of 132 days. Another author observes that the most conclusive and satisfactory experiment on record, is that instituted by Lord Spencer, in which the period of gestation in no less than 764 cows was accurately ascertained. From this it appears that the shortest period in which a live calf was produced, was 221 days; but no calf produced under 242 days could be reared. The longest period of gestation was 313 days. From Lord Spencer's tables, as given in the *Journal of the Royal Agricultural Society*, it appears that 314 cows calved before the 284th day, and 310 calved after the 285th day, so that the probable period of gestation in this useful animal may be fixed at 284 or 285 days. The average period of gestation in the ewe is given by a German author, as 161 days and that of the sow as 143.

POLL EVIL.—A. F. C., of Oshkosh, Wis., writes as follows: "I have a horse which has had a swelling on the top of the head for several months. A sore has formed on it, from which a quantity of corruption has been issuing, and the horse is beginning to get poor in condition. Can you tell me what can be done in such a case?"

The top of the head must be covered with a piece of canvas, with two holes for the ears to pass through, and the sore must be washed daily with a lotion composed of one drachm of sulphate of copper to the pint of water.

CARE OF HORSES IN WINTER.

1. During the winter months, those horses which are used for labor should be well shod. Unless, however, they are to be driven in such places as render them very liable to slip, the corks should not be very sharp. When a horse is newly shod, be a little careful when you drive him, especially if he feels well, or he may cork himself. Like men it takes a few days for them to become accustomed to handling their feet with new shoes.

2. See that the stables in which horses stand are strong, and so arranged that they cannot kick each other. In cold weather, if they are not well fed and do not work much, they kick and paw, or bite their mangers for exercise.—It is not viciousness that makes them do it, but frequently a want of exercise. Often a valuable horse is badly injured just for want of proper arrangement of the stalls. A little expense to-day often saves a good deal to-morrow.

3. See that the floors are strong, and that the horse-barn is well banked up to prevent the cold air from passing under the building, and making the floor constantly cold. Every means ought to be taken to have the floor as warm as possible. A horse that has worked all day and his legs wet, often takes a cold because his legs are kept so during the night by a floor. Warm feet for horses are as important as for men.

4. A horse's bed is of some importance. We know a good many farmers who allow them to stand and lie on the hard floor all winter. They may get used to it, but what can be got used to is not always the best. A good bed of straw, or some similar material, kept clean by frequent changing, should be furnished to all horses. They will frequently paw it from under them, but this is for amusement and not because they do not wish for a bed. When this is the case, great pains should be taken to prevent it.

5. Always clean out the droppings of your horses, both morning and evening. They ought always to be removed so far from the stable that the air will not be poisoned by the emanations from them, or the sills and sidings of the barn will be rotted by coming in contact with them. We have always thought the practice of throwing the manure into a heap by the side of the barn door, slovenly, wasteful and detrimental to the health of the horse.—With a broom sweep out all dust that accumulates daily.

6. All horses should be groomed every morning when stabled. A good grooming is worth as much as half a peck of oats. Every barn should be supplied with a good curry-comb, card, comb for mane and tail, brush and stiff broom for this purpose. It keeps the circulation in surfaces vigorous, keeps the skin clean and in good condition to withstand both heat and cold, and makes the horse look very much better. An ungroomed horse is like an unwashed boy, or a person who never attends to his toilet.

7. It is a question with some whether a horse should be blanketed in the winter. If the stable is a good one, and sufficiently warm, we should not use the blanket, except when the horse is out of doors, or has been subjected to severe labor or exposure. If it is used when they do not need it, it will do them little good when they do need it.

8. In a cold day of winter, when a horse's bits are full of frost, always warm them thoroughly before placing them in the mouth. Not to do this, is very cruel. Touch your tongue or even wet finger to a very cold piece of iron, and you can appreciate the importance of this hint. It may be a little trouble to do it, but it should be done. The frost may be taken out conveniently by placing the bits in water.

9. If you have no labor to perform with your horse, see that he has plenty of exercise daily.

This is necessary to the health of the animal, as well as to his and your comfort.

10. Do not allow him to drink very large quantities of ice-cold water at once. Moderately warm water is the best for animals, but a large quantity of very cold water is injurious. Especially is this the case when they do not have moderate exercise immediately after drinking, or when the horse is warm or much wearied by hard labor.

11. A horse's food can never be exactly measured to him. Some times he needs more than at other times. Give him as much as he needs, and exercise judgment in regard to the matter. At all times give as much bright hay as your horse can eat. If the weather is very cold, the horse needs heat-producing material, and corn is as good a grain as you can give. Grind it and feed wet, and mixed with a little cut hay or bright straw. When it is warm, oats is the best of grain for horses, and for laboring horses nothing is superior to them. Oats are to the horse what steak is to the laboring man; they furnish the material for muscle.

12. Young colts should not be stabled in winter, but protected from cold storms and winds by sheds, or kept in unexposed situations.—They need to be kept where they can move about as much as they desire. It gives them better constitutions and better locomotive power. Give them a little grain daily, and domesticate them by treating them kindly and handling them frequently.

13. Brood mares, unless they are worked, should be allowed to run out, except when the weather is severe. Give them plenty of hay and a moderate allowance of oats. A few roots occasionally are good, but never feed frozen roots or those very cold, to them or any animal. It is like putting so much ice in the stomach.—Ohio Farmer.

TO SAVE RENNETS.—Keep the calf from the cow about twelve hours before killing. There will then be but little curd, and what there is, take out carefully and throw away. Do not wash the inside of the rennets, but salt well, and stretch on a crocheted stick, and hang up to dry in a moderately cool place. Rennets a year old are generally believed to make milder cheese than those of less age. To prepare for use, put one to a gallon of water, about milk warm, add a little salt, soak about ten days, rubbing it well a number of times while soaking to get out the strength, then take out, salt and dry again for future use. Strain the liquor into a jar, put in a little more salt than will dissolve. Tie up in a bag about half an ounce each of cloves, cinnamon and sage, also a lemon cut in slices, and drop into the liquor. Keep in a cool place, and stir each time before dipping out. Put enough rennet into the milk to have the curd ready to cut up in thirty minutes after the milk is set.

EXPERIENCE WITH MERINOS.—A gentleman in Roxbury, Me., gives his experience with Merinos. He says:

I am not a Merino man, but will give what little experience I have had with them. I had always stood up against the Merino, till last year, when I sold my wool, sheared from common sheep. I had to discount ten cents per pound on it, because it was yellowed and felted more or less. That fixed me. I determined to try the Merinos. I therefore purchased a full blood Merino buck last fall. He wintered much better than any other buck I ever owned. I am much pleased with my flock of lambs from him. He sheared ten pounds, two ounces washed wool, two and one-fourth inches long, without stretching. I sent a little of the wool to an old manufacturer, and he said "it was the wool for fine cloth." The result is, I am well pleased with my experience so far. I did not try them because my neighbors had them and liked them,

on the contrary, my buck is the only one about here, and nearly all the farmers were prejudiced against them.—Maine Farmer.

PERMANENT GRASS LANDS.

A correspondent of the *Country Gentleman* says: "Observation and experience from my youthful years, convince me that lands natural to grass and desired for its production, should never be disturbed by the plow, but their fertility kept up by top-dressing of animal manure, ashes, plaster, muck, earth, or whatsoever enriches pastures at almost any time; mowing lands soon after the hay crop is removed, that the surface dressing may act upon the grass as the earth does upon other crops under cultivation, also affording protection and warmth during the cold and wintry season.

Natural meadows—that is, the level land bordering on streams and rivers—are undoubtedly best for mowing, and can usually be made smooth without even a first plowing, and are sometimes found self-sustaining; also lands receiving the wash of hills, roads and barn-yards, often keep up their fertility without any direct application, though the hay crop is continually taken off. Lands less favored naturally, must be treated artificially, and strengthened and replenished by irrigation, or some fertilizing substance applied to the surface.

Plowing seems to destroy this life and take away the heart of the land for grass, which almost always soon runs out after it, and must be richly manured and thickly seeded, and the process often repeated in order to keep it up.

The custom with farmers here is, to plow annually a small piece in their mowing lots—we have but very little natural meadow land—put on the entire manure of a large stock, get a good crop of corn, followed by oats, with new seeding, then a fair hay crop for about two seasons.

If the grass has been improved, it has not been done by the cast-iron plow, but by the liberal manure. A less portion put on as a top-dressing, would have resulted in a greater and more permanent benefit, besides the labor of getting off the stones and preparing it for the mower.

It is also the custom to plow a piece in the pasture, sow to buckwheat, followed by oats, with new seeding, and is then assumed that the land is made better, been enriched, while in fact it has been made poorer to the amount of the two crops taken off, besides otherwise injuring it for the production of grass, as a few years will show.

This unnatural method of improving old pastures by repeated plowing and cropping, has, in many instances, been fairly "run into the ground," and many of these naturally fertile and grassy hills, have become poor and waste places, while others near by, which have never been poisoned by the plow, nor too closely fed, still to a good degree maintain their productiveness.

If an old pasture could be spared a few years to rest, and to grow up to white birches or other trees, whose roots should penetrate and pervade the compacted soil, while their limbs and leaves would give resting and shade in the

summer and warmth in winter, and altogether rarifying and aerifying, ameliorating and renewing its condition, then cutting off the young growth, and you have the best kind of new ground and good pasture for years, enriched by shade and rest, fallen leaves, and decaying stubs and roots. The first plowing is the beginning of evils, and should never be done where grass is desired.

To hear an old farmer, in passing over his deteriorated mowing or pasture lands, say,—"the grass has run out here, this needs plowing," is strange logic to me. I believe in Cincinnati and the plow—but on grain and not on grass land.

The sage saying of the Scotch minister—(our friend John Johnston will agree in this)—when taken by his parishioners, in time of drouth, around with them from field to field, to pray for rain and the blessing of Heaven upon the parched and feeble crops, coming to a very poor and neglected field, he said to his brethren, "Pass on, pass on; it will be of no use to pray over this land—it needs manure!" This was common sense and philosophy, as well as piety.

It is somewhat of plowing as of praying to make grass grow on a poor or run-out field—plowing will do no good; it needs manure.

ED. RURAL WORLD: Pardon me if I impose on the readers and the well-filled columns of the *Rural World*, by asking a few questions.

I wish to embark in the business of sheep raising, and desire to know what breed will prove the most valuable in this climate—wool and mutton both being taken into consideration; and to hear through some well-informed subscriber, a few suggestions as to the best manner of building sheep houses.

I wish to know what kind of hedge will grow best on the banks of a river, either where subject to overflow or out of reach of high water.—The hedge is desired merely as a barrier to cattle.

A few hints on building small barns, will also be thankfully received.

Being a new beginner and very inquisitive, and altogether exceedingly desirous of relating my experience in the delightful art of farming, you will probably hear from me again shortly.
Morelle, Mo. MERRIMACKER.

WIRE FENCES.

Wire fences in certain localities are preferable to those of wood, both from their cheaper construction (where lumber is scarce) and their requiring less labor to build and keep in repair, while if properly made they are as good, or a better safeguard against unruly stock than wooden fences.

In building a wire fence, it is necessary to have a large post well braced at each end, to withstand the strain when the wires are drawn stiff. These posts should be nine feet long, 15 inches or more across, set four feet in the ground, inclining slightly from each other, and the holes filled in with small stones. They should each be braced with two poles 10 or 12 feet long, and 8 inches across, the small end beveled, and placed in a notch cut near the top of the post, and the butts spread three feet apart, and planted firmly against a block placed below the ground 6 or 8 inches. Then dress the side of one post (opposite the braces) so as to make a flat surface 10 inches wide from top to bottom.

Bore the holes for the wires horizontally at a distance from each other as follows: The first 8 inches from the ground, the next 8 inches from the first, the next space 8 inches, the next 10 inches, and the next 11 inches. The small posts may be round, and set at equal distances of two rods. They may be fastened with small stones if convenient, as they are not so liable to heave out by frost, as when filled in with earth. The wires should be No. 6, annealed, and fastened to the posts by small hooks or staples, made for the purpose, not so closely, however, as to prevent the wire from moving freely when drawn. Pieces of wire may be spliced, by securing the ends in a pair of tongs, and twisting the end of each around the other. To draw the wires, secure one end to one large post, and the other pass through the holes bored in the other, and the wire-hole of the roller. The wire may then be wound upon the roller by a pair of bars, until it is of a proper tension. The roller for drawing is a "native" of New Jersey, and is it not generally known, I will try and describe it as well as I can without diagrams. It is made of cast iron, 8 inches long and 2½ in diameter; but four inches of the middle is but 2 inches in diameter, thus leaving a flange of 2 inches in width at each end, and as the wire is wound around the middle in drawing, the friction all comes upon the end, which serves as a kind of journal. Through the small part, near one end, is a half inch hole, to hold the end of the wire; and through each flange is an inch hole (the two being at right angles) for a pair of bars to be entered while turning the roller, withdrawing one while winding with the other. The roller weighs about five pounds, which may be prevented from turning back and unwinding the wire, by putting a wooden pin 6 or 8 inches long in the bar-hole. An inch pin placed in the post, under each end of the roller, will keep it in its place while winding.

No. 6 wire weighs two pounds per rod. The hooks or staples, for securing the wires to the small posts may be malleable or wrought iron. They can generally be procured at the hardware store.—[*Rural American*.]

BARBERRY FOR HEDGES.

The Wallingford Circular says: "One of the wants of the agricultural community at the present time is a good hedge-plant; one that is reliable under all circumstances and conditions. Nearly every one that has been tried thus far, has exhibited some radical defect that unfits it for the purpose. A hedge-plant, to become popular, must be perfectly hardy and easy to propagate. It should also be vigorous enough to grow well in ordinary soil without manure. It should be thorny, to keep cattle from hooking it, and strong enough to keep them from breaking through. Finally, it should be low enough to require little or no pruning. The common barberry (*Barberis vulgaris*) combines these qualities better than any other plant I am acquainted with. The barberry is a native of the northern part of Europe and Asia, but has become thoroughly naturalized, and is now found growing wild in the wastegrounds of New England. It is a remarkably hardy plant, thriving well in a great variety of soils, and it is said to live for centuries. It has a shrubby habit (growing from six to ten feet in height), yellowish thorny wood, leaves in rosettes, yellow flowers on drooping racemes, and scarlet oblong berries, very acid, but making delicious preserves. We have a barberry hedge on our grounds at Wallingford, Ct., 25 rods long, and 9 years old from the seed. Two rows of plants were set, the rows one foot apart, and the plants one foot apart in the rows; alternately to break joints. This hedge has been clipped a little, two or three times, to keep it even, and is now six or seven feet high, with a firm, compact base, perfectly impervious to the smaller animals, and stout enough to turn the ordinary farm stock,

except for a short distance at one end where the soil is quite thin. On our grounds at Oneida we have a barberry hedge 50 rods long, and seven years old from the seed. In this case but one row was planted, and the plants were set one foot apart. It has been kept clean with the cultivator, and clipped a little once or twice and is now five feet high, thick and compact at the base, and already so strong that the fence was taken away last fall."

Construction of Ox Yokes.

The *New-England Farmer* contains the following letter on this subject, from A. G. Sheldon of Wilmington, Mass. The editor says that "few men in the country have riper experience in the use of oxen than Mr. S. He was a large contractor in building the Boston and Lowell and other railroads, besides having been extensively engaged in lumbering, teaming, and in ordinary farm work."

C. Garnet, in your paper for June 9th, as copied from the *Country Gentleman*, gives directions for making an ox yoke. His method is, for the yoke to sweep upwards instead of downwards, and the staple to go through the yoke horizontally instead of vertically. I would like to see a pair of cattle that could, with a yoke like this, draw an empty cart up a steep hill. I think I have never seen a pair that could do it.

He gives four feet four inches as the length of the yoke. We cannot suppose he means to place his oxen so far apart as this, but we must suppose that this is to be the extreme length, which affords us no guide as to the distance apart the oxen should be placed. Oxen do not all want a yoke of the same length. As a sort of general rule, farmers and yoke-makers allow from twenty-two to twenty-eight inches as the variation in distance between bows for different cattle.

Yokes are sometimes made with four holes in each end. This is a bad practice. In this case the yoke cannot be made exactly to fit the ox's neck when the bow is placed in either the inside or outside holes. And besides, this always brings one hole right on the top of the neck, where it is important that the yoke should be perfectly smooth. This gives opportunity for the dust, and dirt, and rain to collect, and irritate the neck. Now let the yoke be made with only two holes at each end, and worked out smooth and curving to fit the neck as nearly as possible.

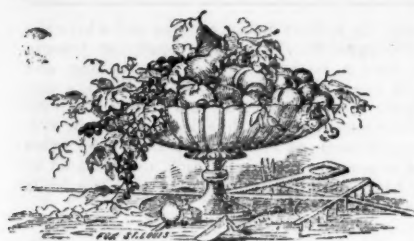
There are three points about an ox which are more liable than any others to be made sore by ordinary work in the yoke, viz: The top of the neck and the two shoulders. We often see oxen with sores on each of these three points. Sore shoulders are frequently caused by the bow being too wide. Sometimes it is caused by the bow being too square or too sharp on the outer edge. The bow should be perfectly round at the shoulder joint, and of such width as to come between the neck and the shoulder-joint. If any man does not believe this, let him put a heavy crow-bar on his shoulder in the right spot, and walk eighty rods, and then put it on his shoulder-joint and walk back.

The drop of the staple, as a general thing, should come down about half way from the top of the ox's neck to the shoulder-joint. Oxen drawing on the lead need a more crooked yoke or a longer staple than when drawing on the nib.

"Perseverance is the best school for every manly virtue."

Be truly polite. Lord Chesterfield says:—"Good Breeding is benevolence in trifles, or the preference of others in the little affairs of life."

Harden in every possible way your body—but keep your mind and conscience clear and bright.



HORTICULTURAL.

THE CULTURE OF BULBS.

Now is just the right time to plant out the Holland bulbs, and here is some of the plainest and best advice about them, written by Mr. James Vick, of Rochester, for the *Country Gentleman*.

No delay should be allowed in getting them into the ground now, though they may be planted at any time, as long as the ground remains open, with success, but the earlier the better, as the bulbs commence to form roots as soon as planted, and the early plantings get strong, and flower stronger and finer than late ones.

"The treatment of bulbs is so simple, and the results so satisfactory, that it seems exceedingly strange that they are not far more generally cultivated.

Not in one garden in a thousand, even of those of some pretensions, do we see even a dozen good tulips, and those who invest a dollar or two in good hardy bulbs are pretty sure to eclipse all their neighbors.

Some care and skill are often required to cause flower seed to germinate, but with a little care in fitting the soil, and in obtaining sound bulbs of fine varieties, the most gratifying results are almost certain with hardy bulbs.

The lack of attention to the culture of bulbs is partly from a mistaken idea of the great care and skill necessary to their proper culture; and this impression is strengthened by many writers on the subject, who seem to think there is a great show of wisdom in recommending the most difficult and complicated methods.

On this subject, we repeat what we stated in our last issue: Many and perplexing are the directions given in the books for the preparation of the soil for tubers and bulbs, as though it were a matter requiring the greatest skill and precision; but we are pleased to state to the lovers of flowers, who have little leisure time and but limited means, that good flowers can always be grown without this labor and care.

Those who have been discouraged with the formidable array of directions, which only a professional florist could practice, need not despair; the gay crocus, the fragrant hyacinth, the brilliant, dashing tulip, can be grown, and well grown, by any amateur—by any farmer's wife or daughter—and may decorate every humble cottager's garden.

A rod or two of ground, a little taste, and some attention to the simple directions given, are all that is needed to insure success. The

greatest obstacle to success, is the difficulty of obtaining sound bulbs of good varieties.

The bulbs grown in Holland, a century of experience, both in this country and in Europe, has proved to be far superior to any produced in any other part of the world. The efforts of florists in other countries to compete with those of Holland, have been failures: hence, hyacinths, &c., are known the world over as *Dutch Bulbs*.

Owing to this exclusiveness of the trade, first class bulbs have been always held at high prices—and hence there has been a great temptation to import those of inferior quality on account of their cheapness, and to sell those grown in this country, or flowered here until almost worthless.

Another reason why bulbs are not more cultivated is, that they must be planted in Autumn, and the majority of amateur gardeners do not wake up to the importance of providing plants for their gardens, until the spring is pretty well advanced; and then when the bulbous plants are in full flower, and should not be moved, often send in their orders. Those who wish a show of bulbous flowers in spring, must make their selection, prepare the ground and plant in autumn.

Any fair garden soil will grow bulbs well; but it must be well-drained, so that the water will not lie on the surface for any length of time, or the bulbs will be likely to rot.

If the soil is poor, enrich it with well-rotted stable manure, or with surface earth from the woods. Cow manure is excellent for bulbs.—Manure should be mixed thoroughly with the soil; and if the ground is stiff and the manure fresh, it is well to put a little sand around each bulb at planting.

The soil for bulbs should be dug deep; and if stiff from too much clay, an addition of leaf-mold, scraped from the woods, or a liberal dressing of sand, will be of great benefit. A free use of cow manure and sand will always produce good flowers. The most important point of all, however, is good drainage; and if this is not neglected, success is certain.

After planting, and before winter sets in, cover the beds with a good dressing of leaves, say five or six inches in depth, or more. If leaves cannot be obtained readily, coarse manure will answer.

In the spring, as soon as hard frosts are over, rake off the covering. Nothing more is required except to destroy the weeds as fast as they appear.

As a general rule, beds should be made so small that the weeds can be destroyed, and the ground kept mellow without walking among the plants. Any breaking or wounding of the leaves, causes injury to the bulbs; but the flowers can be cut at pleasure, and all should be removed as soon as they fade. In no case allow seed to form. The roots of hyacinths are *Annual*, and they can therefore be removed without producing any check.

Tulips and crocuses flower but *once*, and new bulbs are produced for flowering the next season; the success next season, therefore, depends upon the production of good bulbs the

present year. The roots of lilies are not annual, and though they throw out new roots readily, do not always flower as freely the first season as after they become established.

If the simple directions we have here given are followed, and good bulbs planted, the cultivator will not only succeed, but will be astonished at the wonderful results of a little labor and expense."

PEARS.

At the American Institute Farmers' Club, Tuesday, Sep 11, P. T. Quinn, Newark, N. J., placed upon the table twenty varieties of pear, from the orchard which he has cultivated many years on Prof. Mape's farm, and gave his views of their character and the profit of cultivation of the several sorts, a brief report of which we trust will be interesting to others who make a speciality of growing pears for market.

I will commence, said Mr. Quinn, with the Duchesse d'Angouleme, because with me it has proved the most profitable. When perfectly ripened, it is delicious, and its great size much in its favor. Specimens often weigh a pound, sometimes more. It does best on quince, is a strong grower, and prolific. Here is the Beurre Clairgeau, another very profitable market variety. The tree is vigorous and naturally of pyramidal form. The fruit is large, attractively colored, yellow, fawn and crimson, with russet dots; ripe in October and November; and I have sold them at \$12 a bushel, and as the tree yields well, this is very profitable.

Here is the Andrews, a very choice variety for family use, but as it does not bear handling well, it is not so valuable for market; but it is a pear that I would recommend for every private collection. It is an American seedling, of excellent flavor, large size; skin smooth, and rather thick; pale yellowish green, with dull red cheek. The flesh is greenish white and full of juice. Its fault is, rotting at the core.

The Bonne d'Eze is an excellent August pear, very sweet, productive, profitable; fruit large, light yellowish green, with russet patches; flesh white and juicy. The tree is vigorous and productive, but apt to crack.

The Doyenne Boussock is an excellent pear for an amateur; size large; deep yellow, clouded with russet, blushed; flesh, melting, sweet and aromatic. The tree grows strong and is a profuse bearer.

The Beurre Superfin has been much lauded; but I really cannot say much in its favor. The tree is very vigorous and productive, and fruit large and fine looking, but it is not first quality; ripens November and December.

The Louise Bonne de Jersey is one of the most profitable varieties grown for market. It bears well, keeps well, sells well. Tree is vigorous; fruit large, and of handsome form, and comes into market directly after the Bartlett, and I rate it as first-class.

Beurre Diel (so called after an individual of that name) is in every respect first-rate, and a very profitable market pear; though in some situations it cracks, it does not upon our soil.—The tree is vigorous and productive, and fruit large; orange yellow when fully ripened.

The Belle Lucrative is not attractive, and not well known in market, and therefore does not sell well, although it is one of the best Autumn pears known. It is always good and gives satisfaction to those who eat it, and is by many considered equal to the Seckel. It should be in every private collection. The tree bears beyond any other; the fruit hangs in clusters like ropes of onions; is of medium size, pale, yellowish green.

The Sheldon, an American seedling, will yet make a great mark in the world. It should be one of the leading varieties cultivated everywhere for market. The fruit is medium size,

yellowish green, very hard, bears handling, ripens in October.

The Seckel is too well known, perhaps, to need description. It is among the smallest-sized pears grown; is a native American; originated on the farm of Mr. Seckel, near Philadelphia. It is, without doubt, the most excellent variety grown.

The Urbaniste is a late Autumn or Winter pear; medium size, though about one-half run too small for sale. I do not find it a profitable variety to grow for market, as it does not sell well.

Onondaga or Swan's Orange, supposed to have originated at Farmington, Conn., is of large size; coarse, yellow skin, dotted with russet, sometimes blushed; flesh buttery and rich when in perfection. It is a fruit of which you are never quite certain, as it is often acid and not rich. If left too long on the tree, it rots at the core.

The Winter Nelis has few equals from January to March. It is what I call a very good quality of Winter pear, and the tree is a free bearer.

The Vicar of Winkfield has a character which may be set down as good, bad or indifferent, according to the opinion of cultivators. The tree requires age before it comes into bearing, then it is productive and profitable to sell at \$5 a barrel, at which the fruit sells readily in this market in Autumn for cooking purposes, and many persons who use it do not know that it could be ripened at a high temperature into an excellent Winter fruit. The Vicar is a good tree to work other varieties upon.

The Bartlett is too well known for its excellence to need description. It is very popular, and comes directly after peaches, and sometimes in such abundance as not to be profitable to the grower. It was a drug a few days ago, now it is worth \$16 or \$18 a barrel.

The Flemish Beauty does not give satisfaction with me, as it only sells for \$5 per barrel when Bartletts are worth \$15. It is because it is not well known to New Yorkers. In Boston it is a leading and profitable variety—there, they know its value. It grows a superb tree, very luxuriant and prolific. The fruit requires to be picked early and ripened in the house.

The Tyson is another excellent native originating near Philadelphia. The tree is an upright, vigorous grower, but tardy bearer, though eventually very productive. The fruit is medium size, deep yellow, with crimson cheek, which gives it an attractive appearance. It bears well, and it has not the highest quality, has one that makes it valuable—it hangs long on the tree.

Here is a pear which is good to exercise the grower's patience. This is the eighth specimen which I have had from a tree twelve years old. It is called St. Michael Archangel. Although we are willing to wait long for the coming of that personage, waiting twelve years for a crop is rather too much for the patience and profit of a market gardener.

In answer to question, Mr. Quinn said, for his situation, he should name the Duchesse, Bartlett, Sheldon, Lawrence, Seckel, as the five most profitable pears to grow for the New York market. If he could have only five for family use, he would name Bartlett, Flemish Beauty, Duchesse, Beurre L'Anjou and Belle Lucrative.

After this interesting description, Mr. Quinn directed the fruit to be distributed among the members of the Club.

FIRE BLIGHT IN THE PEAR.—The *Country Gentleman* states a case of fire blight in dwarf pear trees which was successfully treated by cutting the entire tree down to within a foot or two of the ground as soon as the disease was discovered. The time being after mid-summer, when the most vigorous growth had ceased, no

very severe check was given to the tree. It sent up new, healthy sprouts, which formed a fine pyramid head. This method of treating the blight is considered superior to that of merely amputating the diseased limbs.

Profits on the Concord Grape.

This is truly the "Grape for the Million," and if you take into account its many good qualities, its health, luxuriant growth, easy propagation, productiveness, early bearing, fine size, and fair quality—we cannot wonder at its being the universal favorite. Acres upon acres are planted every year, and it will soon completely supplant the Catawba here. As an example of its profitability let me insert an account I have opened with a small piece, one-third of an acre:

COST.	
1861. 400 small plants at 25 cents each,	\$100
Preparing ground, planting and attendance,	50
1862. Labor during summer,	50
Making trellis,	100
1863. Labor and attendance,	75
1864. Labor and attendance,	80
	\$455

PRODUCT.	
1861. 1300 sum'r layers at 13 cents each,	\$169
2000 cuttings, \$12 per 1000,	24
1862. 7000 layers, at 10 cents,	700
8000 cuttings, \$10 per 1000,	80
1863. 2000 lbs. grapes, 16 cents netted,	320
30,000 cuttings, \$10 per 1000,	300
1864. 2040 lbs. grapes, 24 cts. netted,	489
40,000 cuttings, \$10 per 1000,	400
	\$2,482

The product last summer would have been much greater had not the extreme cold of last winter destroyed a great many fruit buds, and I think that the same piece of vineyard will furnish at least 5000 lbs. of grapes the next season. I also planted 30,000 cuttings made in 1863 myself, and grew from them 20,000 splendid plants, which are worth now, at the lowest calculation, \$2000. Deduct from this, cost of cuttings, labor spent on them, &c., would leave \$2,100 for the plants, which could be added to the product, making it \$4,582 from the third of an acre during four years, and these being the first, of course the product of fruit will be much greater the following season.—*Geo. Husmann, in Horticulturist.*

TRELLISING GRAPE VINES.

My method of trellising is one of my own originating, and in all my observations I have never seen one that seems to answer the purpose as well. I first set posts of cedar, chestnut, oak, or any lasting timber, eight feet apart and projecting about one foot above the ground. To these are spiked with large nails, either before setting the posts or afterwards, two by four scantling, eight feet long; stretch three or four No. 15 wires along them, and at the top nail a strip of board, one by three to keep the whole secure. No apparatus is needed to stretch the wire, as a man will pull it sufficiently tight for all practical purposes. The vines are fastened to the uprights by staples made of No. 9 wire and bent in proper shape. The trellis is cheap, can be made by any one, and answers every purpose. Some object to

its being so high; but I like to have it high enough, for some strong-growing varieties require more room than others, and the vineyardist is not obliged to train to the top unless he pleases. My canes are tied to the trellis at distances of about two feet, with any kind of string that will not soon wear apart—usually common cotton twine—and if the cane is allowed to grow to the top board I take a small strip of leather and tack it around the cane to the board.

I renew my canes about once in four or five years by letting, at the summer pruning, a new cane grow near the old one I propose to cut away. Thus I take away about one-fourth or fifth of the vine yearly, which makes the vineyard perpetual. Strong canes should be chosen for the new one, and every chance given to it during the summer, or but little fruit will be found upon it the first year. Old canes will never be as productive, neither will the fruit be as fine or well ripened as upon younger ones. The renewal system should always be adopted in some shape, and with my method it is a very simple affair.—*Cor. Rural N. Yorker.*

GRAPE VINES FROM EYES.

There are two different methods I practice in this country, after many laborious experiments, valuable time and cost.

The first plan is the out-of-door propagation of the readier and more willing kinds. For these, I procure well-ripened wood as late as possible in the autumn before the severe frost sets in; cut it into single eyes and plant them without delay in rows on a bed cross-ways in the open ground (rather exposed than sheltered), which is five to six feet wide, and in length according to the quantity of vine eyes, and prepared with the best possible soil as generally used for that purpose. After planting them, I give a cover of two inches of half well seasoned loam and half coarse sand well mixed, and do not water them, but let the soil be tolerably damp in good working order. After two weeks planting or more, if the weather permits, it not being wet, I cover the bed three feet with half-decayed horse-manure, mixed with half-fallen leaves, and lastly line the whole bed three feet with the same material, no frost or moisture being able to penetrate—not even 20° below zero.

In the beginning of April I remove the lining and covering, and place over the beds frames with sashes, and in a very short time the eyes make their appearance; by degrees I give air when the weather requires it. As the plants grow, I raise the frames, and ultimately remove sashes and frames altogether, and leave them to the open air without disturbing or transplanting.

The more obstinate kinds I raise in-doors with and without bottom heat, in sand beds only, three to four inches deep; the eyes being covered half an inch. I have now two beds in full operation—one cold, one warm; the cold cold bed is arranged on the front platform of a greenhouse, 100 feet long; the warm bed is in a half lean-to propagating house also 100 feet long, now filled with a second crop,

Of these latter, I likewise procure the wood and cut it up as above, but instead of planting the eyes at once on the beds, I for two months place them in barrels between layers of moist sand. About the middle of February I plant them on these beds in-doors, and as soon as struck, plant them in well-prepared pits and treat them as the out-of-door eyes. This is the mechanical part of that business and my method here, and if the watchful eye of the experienced propagator but assists, final success is unavoidable. [—C. Grunberg, in *Gardener's Monthly*.]

SOIL FOR A VINEYARD.—The report of the Northern Ohio and Lake Shore Grape Grower's Association for 1865-6, explodes some of the former ideas about grape culture—especially the idea that the grapes should be grown on soil highly manured. The report says:

Contrary to the idea entertained at the commencement of grape culture in this country, it is now the opinion of a majority of vignerons, that a dry soil produces the best wine, especially with the Catawba grape. Stiff clay is preferred. The soil should be dry; hence, under-draining is often a necessity. Sandy soil may produce as fair clusters, but the quality of the wine is inferior. Gravelly soil is probably next best. Clay crests that crop out of sandy or gravelly districts are excellent. Manuring is also discarded. Most experienced growers now consider manure an injury, when wine is the object of production. The vine will bear abundantly a long time, and remain healthy on a soil too poor for common farming. Manuring may spoil a vineyard. We remember a notable instance of the truth of this in the vineyard which produces the far-famed Johannisberger situated on the Rhine. A proprietor once had it heavily dunged, and the quality was perceptibly injured for many years following, though the yield was increased. The wine makers state that the must of grapes grown on the upland clay soils is richer than that from the flatter lands of the Lake Islands or from sandy soils.

On most soils two horses cannot plow deep enough; to use four horses is inconvenient and requires an extra driver. Harness three horses abreast, and you have the best possible plow team.

Alton Horticultural Society.

THURSDAY, Oct. 11th, 1866.

Society met at the Residence of W. C. Flagg, Esq., near Moro:

W. C. Flagg, reported that the transactions of the Society have been published from its organization, November 12th, 1853, to the close of the year, 1864, making a neat pamphlet of 103 pages.

The following essay was read by Mr. J. M. Jordan, of St. Louis, which was ordered to take the usual course:

Horticulture, or, in other words, Fruit Culture, may justly be considered as the fine art of rural life.—Fruit growing has been considered as a sort of hereditary art, very easy to learn by a little practice. Whereas the facts in the case are quite to the reverse. A great and necessary change of opinion is now taking place in the minds of the people, and the intelligent horticulturist is beginning to be appreciated. A thoroughly educated, practical horticulturist is no mere eld-hopper, but is as worthy of a diploma of honor as the book-learned graduate of Harvard or Yale.

But any horticulturist to be successful, must avail himself of the experience and the practical results already attained by others, and must make them as stepping-stones whereon to advance to the higher achievements in the domain of the practical. It will not do to "hedge-hog like" ensphere himself in the prickles of his own preconceived notions and prejudices and there remain "orbed in his own grand isolation." But he must come out and meet with his

friends and neighbors in council, for it is the contact of man with man, and of mind with mind, which is necessary to inspire that enthusiasm which is so essential to rapid progress.

Our agricultural and horticultural journals, in common with books and periodicals of the day, publish nearly every new and important discovery in the realm of agriculture or horticulture, making it seem to the superficial observer, that these horticultural gatherings are unnecessary.

Nevertheless, it has been established by experience that these horticultural clubs subserve many important purposes which are unattainable by any other means.

The statement of numerous individual experiences will frequently show in an hour on which side the balance of testimony lies, and so decide, in a brief session, questions which have been the subject of a newspaper war for months. A brisk fire of questions will often annihilate in a few minutes some plausible theory, which might have been perpetuated in print for years, and often out of the chaos of seemingly inconsistent testimony there will crystallize by the exaggeration of individual experiences a really valuable result, which would not have been attained but by the free interchange of opinions, which is only possible when men meet face to face.

Were the proceedings of these associations printed in our daily papers, they would afford but a faint outline, "a mere skeleton of their value in fact, to which the life-blood of inquiry, and discussion, and special application, and the electricity of personal influence and enthusiasm would be wanting."

Aside from this, the promotion of harmony and good feeling one toward another, is a matter of no mean importance, and no true horticulturist ever finds his light the less for having lighted that of his neighbor. And though it be but a feeble rush-light we should claim it as a privilege as well as one of duty to place it on the bushel, that it may perchance illumine the pathway of some brother, who may yet be but a horticultural tyro, and whose feet have not been guided by the lamp of experience in the paths that lead to fruitful results.

There should be no secret in science. All should cast in their mite of valuable information that they may have gained by their own private investigations. All should be sociable. The sole aim and object of many individuals and communities seem to be to get gain, grab all, let the consequences be what they may to others. The desire to accumulate wealth, regardless of comfort, social happiness, and the interchange of friendly sentiments, should be ignored. On the other hand, we should take every man respectfully by the hand, look him in the eye with the inward knowledge that we had never injured him in word or deed, and truthfully express sentiments of friendship for him, and a warm desire that he may be prospered in every laudable undertaking.

We should visit more; be more sociable; cultivate convivial qualities by the frequent interchange of friendly greetings and social gatherings at private houses. The system the members of this Society have adopted of holding their monthly meetings at the residences of the members, cannot be too highly commended. It is an incentive on the part of the members of the household to make their home as attractive as possible, that others "seeing their good works" will be induced to imitate their laudable example.

By this means, too, we shall compel the ladies to give us their attention and assistance.

It is here especially where we find woman in her own proper sphere. To her softening and refining influence we are mainly indebted for the realization of our ideal homes; for it is they who are ever fostering a taste for the beautiful, wisely striving to make our homes what they should be, such indeed as angels will delight in visiting, and such as our children will ever remember with an affection unequalled, save by their love for their country.

Few indeed are the women who do not love flowers, trees and everything that is lovely and beautiful in nature and art.

Then let us have the voice, the taste, the influence of the gentle sex.

As the purest crystal in its formation attracts to itself kindred particles, even so the centripetal attraction of a pure and womanly life, surrounds her with men of moral worth, whose minds have an affinity for whatever is noble and Christ-like in the human character.

Let us then, have the influence of the ladies that our semi-horticultural sphere may be made complete! Let every home have its flower garden, and each flower garden have at least one representative in our horticultural meetings. Let beautiful bouquets and flowers, the perfume of which shall be as "sweet as the breath of angels," lean mother-like, lovingly over the choicest fruits of the season, For—

"Flowers are holy things: the poet ever Proud to his kind, hath bent his knee to them; And, often, when his hand hath dared to sever One of these Heavenly children from its stem, His soul hath wept to think that life could never Back to this casket give life's stolen gem; Weeping that love—which prompted him to raise— As o'er dead Hylas wept the Naiades."

J. Huggins reported:—

We find on our table a very beautiful collection of flowers.

From Miss Paddock, a variety of Dahlias, Roses, Verbenas and extra fine Balsams, distributed in seven vases.

Two flat bouquets from Mrs. Prewett, of Dahlias, extra fine; Marigolds, fragrant Honeysuckle, Hodgwin Pinks and the Gomphrena Globosa, an everlasting flower, valuable for winter bouquets.

A beautifully arranged bouquet from Mrs. Crowder, of choice Perpetual Roses, coral Honeysuckles, Verbenas and Coxeomb.

Also, from Mrs. Hyde, a choice collection of Dahlias, three varieties of Salvia, Geranium, Chrysanthemum, Mignonette and the fragrant Aloysia Citrodora.

Mr. M'Pike remarked that a fine sample of Catawba was taken from his vineyard to the Chicago fair. It was an interesting fact, showing that the Catawba is not yet dead in this locality. All his varieties, the Delaware, Isabella, Hartford, Herbermont, &c., have done well this season. He contends that with proper care, keeping the vineyard and its surroundings clean, there need be no failure. On being asked how he protects his grapes from birds he said, by raising a thousand pounds more than he wished to market!

After dinner, which was more than our pen will undertake to describe, the Committee on Fruit made the following report:

From W. C. Flagg: Jonathan, Janet, Newtown Pippin, Pryor's Red, Orley, Chandler, Willow Twig, English Golden Russet, Fameuse, Pennock, Roman Stem, Smith's Cider, Brabant Belleflower, Roxbury Russett, Yellow Belleflower, Dominie; and Quince. Jonathan, good bearer, fine color; Early Winter, promising; Chandler, very large, yellow, fair quality fall; Dominie, large, fine specimens. Pear, for name, not known to Committee; very good, said to be productive.

The whole a fine collection.

From H. N. Kendall—Pears, Vicar of Winkfield, Swan's Orange; Apples, Winesap, Yellow Belleflower, and one for name, supposed to be Fall Pippin.

From Harvey Smith, of Moro—Apples: Yellow Belleflower, Newtown Pippin, Winesap, Janet.

A. Starr—Apples: Jonathan, Paradise, Winter Sweet, Ladies' Sweet, Fulton Fall, Janet, Orley, Winesap.

Dr. Long—Orley, Pennock, Autumn Swaar, Winesap, Penn. Redstreak, Vandivere, Roxbury Russett, Pryor's Red. Grapes—Hartford Prolific, Adirondack, second crop. Chesnut with seven nuts to the burr.

J. Burton—Pears: Doyenne, Seckel, Vicar of Winkfield. Apples—Smith's Cider, Rambo, Roman Stem, Willow Twig, Rome Beauty, Peck's Pleasant, Orley, Penn. Redstreak, W. W. Pearmain, Winesap.

J. Hyde—Orley, Roxbury Russett, Tompkin's Co. King, Smith's Cider, Winesap, Newtown Pippin, Swaar.

J. Huggins—Apples: Dominie, Fulton, Jonathan, and of pears a fine specimen of Duchesse de Angouleme.

L. W. Lyon—Apples: Winesap, Janet, Pryor's Red, Hubbardston's Nonsuch, Fall Pippin, Am. Pippin, Nickajack, Rhode Island Greening, Willottwig, Orley, Yellow Belleflower—all these grown on young trees, very large, and highly colored. Nickajack and American Pippin not recommended, being very poor in quality.

W. B. Hundley—very fine specimens of Ben Davis. J. D. Burns—Black Vandervere, Pennock, and very fine specimens of Yellow Belleflower.

The Wine Committee reported on the table two specimens of currant wine, one of them manufactured in 1850, and the other in 1865. The last of first rate excellence for its age. The old wine of excellent flavor, and very pure but deteriorated by being kept in a vessel which allowed the evaporation of a part of its fluid, leaving the sugar in excess.

S. B. JOHNSON, Secretary.

St. Louis Horticultural Society.

St. Louis, October 13, 1866.

President Colman being absent, Dr. Claggett was elected President pro tem.

The following fruits and flowers were presented: By Mr. Dunham, St. Louis county. Apples: Northern Spy, fine specimens, and two other varieties, names unknown, one of which resembled Pryor's Red.

By Colman & Sanders, St. Louis county, (as a curiosity,) a bunch of ripe strawberries, second growth. By Henry Michel, St. Louis county. Sixty varieties of superb dahlias.

The report of Committee on Shade Trees was then read.

Your Committee to whom was referred the subject of selecting the best varieties of shade trees for St. Louis, and the proper mode of planting them, beg leave to report that it is the concurrent opinion of about all persons of experience and taste as arborists, that the best shade trees for any particular locality are such as are indigenous to that locality. To give general satisfaction, a shade tree should be a reasonably rapid grower, should be hardy and long lived, beautiful when young, and continue to be beautiful in its old age; should confine its roots, without suckers, to as small a space as possible; should be clean in its habits of growth, not giving out offensive odors, or dropping dirty pods, blossoms or thorns, and as free as possible from bugs and worms; and for a city it should be able to stand the dust of dirty streets and the heat of brick walls and sidewalks, and should not spread its branches too wide. You cannot have one that cows and horses will not eat, and bugs or worms work upon, unless you take one that is poisonous, like the alanthus. We know of no trees that answer all the above requisites, without the poison, so fully, as our native maples, especially the white or silver leaf maple, and the white elms. They grow well with their roots under the sidewalk, and grow rapidly, if they have soil as good as the ordinary top soil of this vicinity; but they cannot be expected to grow much in the cold, hard, yellow clay that underlies the top soil, which is usually only about one foot deep. Everybody who has an eye for beauty in trees, knows how graceful and beautiful they are, and how that beauty lasts, even improves with age, while the alanthus, the silver leaf poplar, the catalpa and the locust, though they grow fast, and look well for a few years when young, soon begin to show signs of decay, grow scraggy, lose part of their limbs and die early. The alanthus and poplar cannot be tolerated for a moment, except in the paved streets, where their roots cannot run and throw up suckers to destroy everything around them, as they will in open ground. We therefore urgently recommend the white or silver leaf maple and the white elm, as the best shade trees for the city, and especially for that part where the houses set a little back from the line of the streets.

To these may be added, where a greater variety is wanted, the American linden and the tulip tree. A great variety is not needed for true beauty in street shade trees. In parks and lawns, evergreens and other native forest trees may be added.

2d. The proper mode of setting them out:

Many people buy a tree with all the roots cut off, and its top cut off, and dig a little hole in the yellow clay under the sidewalk, and stick down the little stump, that has already probably lain three or four days in the sun, and then put back the clay and the bricks over it, and think they have set out a shade tree; when, in fact, they have only put down a stake that will probably die the first year, but may maintain its sickly and weak existence for a few years, and will then die of starvation.

The proper and only sure way is, first to select suitable trees, not too large nor too small, but somewhere from one and a half to two and a half inches in diameter at the butt, is the best. Larger trees are more difficult to make live, and no time is gained in the end by selecting large ones, and time is lost by taking smaller ones, as trees of the size named, when taken up and set out with care, live without difficulty.

Select straight, vigorous-looking trees, not running up tall like a fishing-pole, but forming its top as soon as it is high enough to be out of reach of cows. Have a good deal of root on them, and do not cut off the top, but thin it out, so that the roots will not have too much top to support, and leave the leading limbs unclipped. Take off lateral shoots and small twigs enough to reduce the top to what the roots will support, and a pretty good amount of top is as necessary to make the tree live as the roots are.

If the top of the elm is cut off, it will never grow with the tall, graceful, gradually-spreading top of the native tree; but the growth will be checked for several years, and will then spread out, broad and short, with a top more like a fruit tree. Leave the leading upright shoots on, and they will throw out laterals enough, as they grow, to give a sufficient breadth of top. A maple or an elm can seldom, if ever, be improved by the saw or pruning knife. Look at them as they grow in an old pasture or on the borders of a forest, and see if they can be improved by the hand of man!

When you have selected and trimmed your tree, cutting off the ends of broken roots with a sharp knife, set them out as soon as possible after they have been taken from the nursery or forest. If they are to be

set in the hard yellow clay of this city, dig a hole from two to two and a half feet deep, and no less than six in diameter, and the deeper and larger it is the better. Carry off the clay, and fill the hole with top soil, and set the tree in that. If that cannot be done, carry off half the clay, and break up the other half fine, and mix it with about equal parts of sand and well rotted manure, enough to fill the hole, and set the tree in that. When the tree is set near the curbstone, if you will make it a good bed in that way entirely across the sidewalk, you, and those that come after you, will enjoy the beauty of a vigorous and long-lived tree. A brick sidewalk over the roots of a tree is no injury to it in this climate, but rather a benefit, acting as a mulch to keep the roots moist.

Trees in the street should be protected with boxes about sixteen inches square and at least six feet high and tied at the top of the box with soft rope or canvas to prevent their being barked by the winds switching them against the edges of the box. Much more might be said appropriate to the subject, but we hope "a word to the wise" will be sufficient.

D. T. JEWETT,
CHAS. PEABODY,
WM. F. COZZENS.

Mr. Kelly. I like the report as a whole; other trees might be added. I would give a little prominence to the tulip tree. It is a clean and beautiful tree, and in some particular localities in our streets, I would prefer it to either the elm or maple. Still, the two latter trees are undoubtedly the best. I like the size recommended. When you set out trees much above two inches in diameter they will not do so well as trees of a smaller size. I would recommend planting trees just twice as thick as it was designed to have them stand permanently, and then when they begin to interfere by growing together, I would thin them out by cutting down every other one. In this way immediate shade is produced.

Mr. Jewett agreed with Mr. Kelly about putting them out pretty thick. If afterwards it were found that they interfered with each other, they could be thinned.

Mr. Peabody. If trees are put out too thick, they begin in a year or two to interfere with each other, and this checks their growth. They must have plenty of air and sunshine. Then, nobody ever wants to cut down a shade tree. The thinning out process recommended will never be done, and consequently the trees, especially if they are elms, will never develop beautifully into their natural shape. I would prefer to spend all the money I have for the purpose in putting out on a lot with fifty feet front two good elms well, than to crowd in six, with the expectation of cutting out three or four of them in a few years. Elms should never be planted less than twenty feet apart.

Mr. Butler. I have seen trees six inches in diameter transplanted in Central Park, New York. It is true \$100 was paid for each one, and they were guaranteed to live.

Mr. Peabody. I have no doubt this can be done. I have seen trees being removed and transplanted in Paris nearly two feet in diameter, with the tops all on and roots running out ten or fifteen feet in all directions. They were removed in an immense frame on wheels, with the tree all the time in its natural position. But all these methods are expensive. We must recommend something practical, which lies within the reach of every one who owns a lot in the city.

Mr. Sanders. I am in favor of the report in recommending the trees which we know to be the best. But I have no doubt that in time we shall find many others not named in the report which will prove useful. I will mention the ash as a beautiful tree, though I do not know as it has ever been tested for shade in cities.

Mr. Peabody. We have to-day on the table the finest display of dahlias I ever saw. I would like to ask Mr. Michel to give us the method he adopts for producing such dahlias.

Mr. Michel. I plant the bulbs in hot beds, just as I would sweet potatoes; when the plants get up four or five inches, I cut them off down close to the tuber or bulb; these sprouts I cut up into little pieces, making the lower cut just below an eye. These cuttings I put out in sand, and they soon strike roots and grow. The tuber will send up other sprouts, which when of sufficient size, are cut off and treated in the same manner. A large number of plants are thus made from a single tuber or root. By this method the finest flowers can be produced. If you plant the whole bulb, with one eye on it, the plants will grow very rapidly and strong, but it will all go to stalk and leaves, and the flowers will be indifferent. Most people plant out dahlias too early; the first of June is plenty early enough. The best flowers are those which are produced late in the season. The treatment of the plants, after they start, requires no special skill.

CHARLES PEABODY, Sec. pro-tem.



EDITOR'S TABLE.

THE ST. LOUIS FAIR.

This great Western Exhibition is over. In most respects it has never been equalled. In all Departments but the Fruit and Vegetable, it surpassed all its predecessors. The Floral Hall was a perfect gem. Mr. M. G. Kern really surpassed himself in this his latest effort. To him have the Directors been indebted for all the attractions which our Floral Hall has offered at this and former Exhibitions. No other fairs can boast of any such designs.

The Department of Agricultural Implements and Machines was filled to overflowing—no other exhibition beginning to compare with it.

The Sheep and Swine Departments were very creditable indeed. Our correspondent, R. H. Ballinger, of Nilwood, Ill., of fine wool sheep notoriety, took off many First Premiums, and exhibited some of the best fine wool sheep we ever saw.

All the city papers were completely loaded with the reports of all Departments of the Fair and contained full Lists of the Premiums, and we think it useless to repeat what they contained. Besides this, we were one of the Directors, and had so much business to superintend that we did not have time to examine all Departments.

Farmers will always find themselves well paid by visiting our Fair.

FAIR AT CARLYLE, ILL.

We attended the Fair at Carlyle, and gave the Clinton County farmers a talk. We were glad to see that the Society had such fine grounds and so creditable a display at the exhibition. The grounds are new, and have been admirably arranged for the purpose of holding Fairs. The ring for the trial of the speed of horses is entirely disconnected with the other Departments—so that they in no manner interfere with one another. The officers of this Society are deserving of great credit for their labors for the benefit of the farmers of Clinton Co.

[Written for Colman's Rural World.]

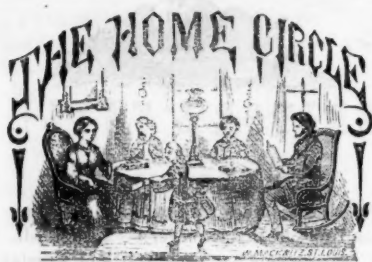
THE ASHLEY FAIR.

This Fair came off on the 16th—19th days of October, with a fine attendance, and as usual in old Pike county, Missouri, a fine lot of stock and other articles in fine condition, were on exhibition, and the affair went off with not a word to mar the peace of the company.

I can boast of the morality of this part of Missouri. No person was drunk on the ground or in the town during the Fair. We have no saloon or dram-shop in our place. What other place can boast of having a population of four hundred persons and no saloon?

There is a good Seminary here, and persons wishing to give their sons and daughters a good education, would do well to place them in this institution.

B. RIGGS.



THE FATHER.

Father! Child! Mysterious relationship!—How many hold it; how few appreciate it!—Fathers live in every neighborhood; but where are the fathers who comprehend the dignity of fatherhood?

God is a father. He is the first, perfect all-father. He is the fountain-head of all fatherhood. All fathers have grown out of Him. All parent power has its origin in Him. Human creatures are but the flowers that have budded and blossomed on the bosom of His paternity. Do fathers acknowledge the source of their parenticity? It is undevout to become a father without a prayer breathed to the giver of all paternity, or a thank-offering made for the mysterious, yet beautiful gift.

Father! how tender the name! and how suggestive of mysterious powers! It was not blessing enough that God created man in his own image, but he conferred upon him the power of giving being to other men in his image. The father gives himself to his child; he re-makes himself; by a mysterious process he moulds himself into his child. The essence of his being pervades the child's. Even the character of the father gives its tinges to the child. There may be seeming exceptions, but this is the rule. The brutal father begets a brutal child; the high-souled father imparts nobility to his child. Powers, gifts and characteristics are hereditary. The roots of the father-soul strike into the child-nature. The seeds of the parental character are implanted in the very soil of the offspring being. A child must be like its father; must have the father daguerre-typed in itself. The likeness may be faint or strong, but it must be exact.

How fearful a thing it is to be a father! His faults, his imperfections, weaknesses, impulses, passions, ruling loves and lusts, must all plant their germs in the very soul of the new being. They are checked and balanced by maternal inheritances, but nevertheless they go down from father to child through succeeding generations.

How beautiful a thing it is to be a father!—His strong affections and virtues, his noble powers and generous spirit, his goodness and large-heartedness, strike their life-roots into the soil of the new soul and go down to succeeding generations a rich paternal inheritance—and to its influence for good, no man can set any bounds.

How great a thing it is to be a father! What powers, what labors, what reforms, what brilliance of mind and life, what strong results may follow in the line of a father's family? Many

a father unknown to fame has made the nation shake with the trumpet-tongue of his son's or daughter's name. Tremendous effects for good or bad often follow fathers of modest bearing. Truly it is a great, a fearful, a beautiful thing to be a father!

Fathers should realize all this, and do the best within their power to train their children to goodness, usefulness and honor. Much depends upon training. A child's character is easily moulded, and if bent may be easily made erect. The father's example is powerful. His words strike on tender ears which will readily catch up their tone and spirit. His acts will be repeated. Let the father think hourly of the tender and recipient nature of his child, and beware of doing evil, beware of showing wrong in his life!

FAME.

A desire for fame is not the way to obtain it: it was never so obtained. Alas, that it should be so—that our sweet anticipations should thus be blasted! And yet it is right—for were our happiness no more than a mere desire, and that after so unsubstantial a thing as fame (a name after death), it would amount to but little—not the worth while of a life of labor. The more substantial is seen by the wise and best men—and these we find often enjoying it in the humblest ranks. They enjoy the actuality of life, and not its mere delusion. Fame is a dream—it exists in the mind—a picture, and an exaggeration at that.

NOVEMBER.

Deep is the desolation now in the naked fields, and in the more naked woods. All is now a grave-yard—for the flowers and herbs and trees; and the birds leave a requiem behind. This wind is not the summer wind, though the same. It also mourns. The flowers have died as they lived, in silence. So have the butterflies. So do do many beautiful things. So do our dearest joys expire.

The days are short. It is but a look of the sun, and that at a distance, and we are left to the long night. This look is the softest and the saddest in nature. It will do now to walk forth and be alone. How fresh is the air, with here and there a flower yet—as we see on the verge of winter, in spring, flowers also. Yet how different! All is difference! Then nature was young; now it is old. The leaves are ever a prominent thing—ever in the way wherever we go. And can you find more harmless things, except the flowers? they always take the precedence. But the leaves have also been beneficial—these leaves that we tread upon. They grow the mighty forests (that cast them off so ruthlessly); all the fruit, too, and the grain. The leaves do this, that now lie without a whisper or a motion, save when the wind moves them; then they complain severely, that were so happy during the summer, clapping their hands. Their fate is ours.

A New Zealand chief maintained that he had a good title to his land because he had eaten the former owner.

FLOWERS.

Flowers are the bright stars of man's existence. They are ever called to his aid, and their place is everywhere. They serve to form the bridal chaplet, and are laid upon the caskets of loved and loving ones! Thus they are associated with him in all the scenes of life.

What is more pleasing to the sick than a bunch of flowers culled by the hand of some dear friend, and sent to beguile the tedious hours? He constantly asks to have them brought near to him that he may inhale their sweet perfume, and, as it were, gathers new strength to bear the sickness, sent by that Hand that woundeth but in love.

They serve to lift our thoughts "from nature up to nature's God;" for we cannot look upon things so beautiful without the thought, that they were formed by other than human wisdom. Many are the lessons we may learn from these types of angelic beauty. The glory of all earthly kings cannot compete with them, for even Solomon, the wisest and wealthiest of monarchs, as our Saviour tells us, was not arrayed like the lily of the valley, one of the least among flowers. Though its outward robe may not be so gaudy as that of others, yet it is, and shall be through all future ages, the emblem of purity. And can we wonder then that He, whose whole life was one of unsullied purity, should speak thus of this humble flower?

Flowers, like all things else of earthly type, remain but for a short time. They open their petals to the influence of the sun and air, and having received new life and beauty, ere long they droop and die! Let us, then, as we see that upon all around us is written, in characters too plain to be mistaken, "passing away," remember that we too bear the same impress—and also, that each moment as it is launched into the broad ocean of eternity, bears upon its bosom the record of every deed done in the body, for which we must give account in the day of judgment. Then shall those things which we now suppose only known to ourselves and our Maker, be made manifest to all men—a solemn thought! Let it teach us to be watchful over our every action in life, knowing also that for every idle word, God will bring us into judgment.—Ex.

A NEW BAROMETER.—An exchange says, that a German has recently invented a very cheap and easily made barometer. Take a common glass wide-mouthed pickle bottle and fill it to within three inches of the mouth with water. Then take a common sweet oil flask and cleanse it thoroughly, and plunge the neck into the pickle bottle as far as it will go. This completes the barometer, and in fine weather the water will rise in the neck of the flask, descending again in wet, windy weather. Before a heavy gale of wind, the water has been seen to leave the flask altogether, at least eight hours before the gale was at its height.

Basilicon ointment, which all drug stores keep, is a mild and efficacious ointment for bruises and sores—spread on linen and bind on the part affected. Though in cases where the flesh is bruised by iron or machinery, chewed tobacco is excellent as an immediate and primary application, to be bound on the part.

"There is no Such Word as FAIL."

This sentence should be deeply impressed upon the hearts of the young. He who will not strike boldly in the battle of life, and conquer the opposing foe, must sink sooner or later into the slough of despond, and be forgotten by the on-marching army, whose lips are singing the psalm of victory. It were better for that one if he had never been born. Life is not a rose-laden path for carpet-knights to tread. No; its ways are rugged, and it is the brave in heart only that, fearlessly accepting it challenges, doing battle as they move along, win the goal. He who sets out with fear and trembling, dreading to meet foes seen and unseen, succumbs ere he has commenced the journey; but he who boldly adventures the path, whether it leads to gloomy abysses or up giddy ascents, over morasses, through night-like forests, or into regions of perpetual snow, holding aloft his banner, inscribed with the daring motto—"There is no such word as Fail!" is victor in every fight. His heart beats quick, his eye brightens, and his strong arm is nerved for battle when danger approaches. No thought has he of retreat—onward, onward he marches, driving his enemies before him! What cares he for these—was he not made to do or die?—He will be victorious—nothing shall deter him. He knows no such word as Fail. Whatever he resolves on, must be accomplished! He cannot succumb, though the world should press upon him. Death, rather, and he conquers! The hero of the field, he wears the laurel crown! It is only when age overtakes him, palsyng his arm, and stealing his strength of purpose, that he "wraps the drapery of his couch about him, and lies down to pleasant dreams." Even then he is but subdued—not conquered. His task has been faithfully accomplished. His end is blessed!

Young man and young woman, if you would succeed in life, strike from your vocabulary the stumbling-block to success—the word *fail*!—*Maryland Farmer.*

A WIFE, A MOTHER.—How sacred and venerable these names! What nobler objects can the most aspiring ambition propose to itself than to fulfil the duty which these relations imply! Instead of murmuring that your field of influence is so narrow, should you not rather tremble at the magnitude and sacredness of your responsibility? When you demand of man a higher education than has hitherto been given you, and claim to drink of the same wells of knowledge as himself, should it not be that you may be thus enabled, not to rush into that sphere which nature has marked for him, but to move more worthily and gracefully within your own?

A gentleman having engaged a bricklayer to make some repairs in his cellar, ordered the ale to be removed before the bricklayer commenced his work.

"Oh, I'm not afraid of a barrel of ale, sir," said the man.

"I presume not," said the gentleman; "but I think a barrel of ale would run at your approach."

WARTS.—To cure warts, take a little Corrosive sublimate and put it in whisky, and with the mixture wash the wart a few times and it is gone. Then dress it with some mild ointment, and in a short time one would not know that a wart had ever been there.

BOILS

Are nature's method of avoiding or curing disease. A boil begins with a hard lump, which increases in size, heat and painfulness for about seven days; then it begins to "point" and a yellow speck at the top is seen. This spreads, and finally "breaks," discharging more or less blood and matter for two or three days, when the "core" comes out, the pain ceases, the hollow left is by degrees filled up with new flesh, and in about fourteen days from the beginning, the patient is well, at least of that one! But sometimes a second one breaks out before the first one is well; or a dozen or more appear in various parts of the body in various stages.

Job was covered with boils. The Romans designated them by the Latin word which means to "make mad," or ill-natured. Only saints can be serene when a boil is coming to a point. The old and the young, the vigorous and the weakly—all are exposed to them; but with this difference—in the robust, they run their course in about fourteen days and get well of themselves. In persons of feeble constitution, a boil becomes a carbuncle, which is many boils springing up near together. These often prove fatal, especially with those who use ardent spirits. The general treatment is to call in a surgeon and have it cut to the bone in a cross. In every case, keep the parts moist all the time by a poultice of sweet milk and stale bread; nothing better, safer or more handy, can be used; it remains moist longer than most others, and is easily softened and removed preparatory to renewals, which should be made thrice a day.

Boils are the result of impure blood, made so by imperfect digestion; or an excess of bile, owing to a torpid liver or the want of sufficient out-of-door exercise. They are not a sign of health—but that nature is carrying on a healthful process.

A felon or whitlow, is a boil formed on the bone under the whit-leather or broad tendons, which are so impervious that the yellow matter cannot be worked out through them; hence if not promptly cut down upon, to let out the yellow matter, it must get well by the slow and fearfully-painful process of re-absorption.

As to a common boil, all that should be done is to render the process of cure less painful, by moist poultices, by living on coarse bread, ripe raw fruits, berries, and tomatoes in their natural state—using no sweets, oils, meats or spirits. If the constitution is feeble, beef-soups, and other nourishing food, is necessary. Be out of doors; keep the skin clean, and have the bowels act freely every day.

The Saxon name, "Bile," is the best term, because it is really nature's process of discharging extra bile from the system, with other hurtful humors which ought to be out of it. If boils follow fever or other disease, it shows that they were not treated with sufficient activity.—*Hall's Journal of Health.*

People who like so much to talk their mind should sometimes try to mind their talk.

DOMESTIC DEPARTMENT.

MUFFINS.—Flour, 1 quart, warm milk and water 1 1/2 pints, yeast 1/2 pint, salt 2 ounces. Mix for 15 minutes, then further add, flour 1/2 peck, make a dough, let it rise 1 hour, roll it up, pull it into pieces, make them into balls, put them in a warm place, and when the whole dough is made into balls shape them into muffins, and bake them on tins. Turn them when half done, dip them into warm milk and bake to a pale brown.

BEST TOOTHPOWDER.—The ashes of good cigars.—Use those that are white, common cigar ashes are of a black color and unfit for this purpose, but good cigars furnish pure and nearly white ashes, which is a mild, and excellent dentrifice and valuable also for cleaning artificial teeth. Those who wear them should, on retiring to sleep at night, take them out of their mouths and let them soak in water till they rise. A little of the above ashes on a tooth-brush, occasionally used, will keep artificial teeth free from all unpleasantness. Of course ladies will have to depend on their husbands or brothers for a supply of ashes.

SCENT RESEMBLING VIOLETS.—Drop 12 drops of genuine oil of rhodium on a lump of sugar, grind this well in a glass mortar, and mix it thoroughly with three pounds oforris power. This will, in its perfume, have a resemblance to the violet.

WEARING FLANNEL.—Flannel should be worn summer and winter, during the day, but should be taken off at night. In summer, it allows the perspiration to pass off without condensing upon the skin, and prevents the evil effects of the rapid changes of temperature. In winter, it is a protection against cold. At night, it should be exposed to a free current of air and allowed thoroughly to dry; it should never be put in a heap of clothes by the bed-side.

THE HANDS.—In order to preserve the hands soft and white, they should always be washed in warm water, with fine soap and carefully dried with a moderately coarse towel, being well rubbed every time to insure a brisk circulation, than which nothing can be more effectual in promoting a transparent and soft surface. If engaged in any accidental pursuit which may hurt the color of the hands, or if they have been exposed to the sun, a little lemon-juice will restore their whiteness for the time; and honey soap is proper to wash them with. This can be purchased at any respectable chemist's. Almond-paste is of essential service in preserving the delicacy of the hands. It is made thus: Blanch and beat up four ounces of bitter almonds, add to them three ounces of lemon-juice, three ounces of almond oil and a little weak spirit of wine. The following is a serviceable pomade for rubbing the hands on retiring to rest: Take two ounces of sweet almonds; beat with three drachms of white wax and three drachms of spermaceti, put up carefully in rose water. Gloves should always be worn on exposure to the atmosphere, and are graceful at all times for a lady in the house except at meals.

BEET-ROOT COFFEE.—A very good coffee can be made of beet root in the following manner: Cut dry beet-root into very small pieces, then gradually heat it in a close pan over the fire for about fifteen minutes. Now introduce a little sweet fresh butter, and bring it up to the roasting heat. The butter prevents the evaporation of the sweetness and aroma of the beet-root, and when fully roasted it is taken out, ground and used like coffee. A beverage made of it is cheap, and as good for the human system as coffee or chicory.

HOUSEHOLD FRIENDS.

Coe's Cough Balsam and Coe's Dyspepsia Cure—they should always be in the house ready for immediate use; they are the most reliable remedies known. The one always handy and speedy in cases of sudden attacks of croup amongst the children, or for curing the most stubborn coughs and colds, is excellent for sore throat and all lung difficulties, the other—Coe's Dyspepsia Cure—is certain to cure Dyspepsia, no matter of how long standing, indigestion, and all diseases that originate in a disordered state of the stomach and bowels.

Some men are like cats. You may stroke the fur the right way for years, and hear nothing but purring; but accidentally tread on the tail, and all memory of former kindness is obliterated.

RULES FOR IMPROVEMENT.

Never shrink from an unpleasant duty.
Be charitable in thought as well as in action.
Bathe every morning and take plenty of exercise.
Be open for correction: if you are in the wrong, frankly acknowledge it.
Be virtuous in mind and body, and let your thoughts be pure.
Be useful for the love of use, and not for the credit of being useful.
Improve yourself by the means in your power, mentally and physically.
In time of danger and trouble, think first, and then act coolly and decisively.
Never be prejudiced, or allow yourself to be led, without first judging for yourself.
In study, concentrate your thoughts and ideas solely upon the subject before you.
Never be idle; always have something to do. Remember, moments are the golden sands of time.

Always get up when you first wake in the morning—one hour of that time is worth two at night.

Do everything in a cool, active and energetic manner; never allow lazy feelings to come over you.

Persevere. Never give up a thing until you have tried it in every possible way.

A spirit of kindness is beautiful in the aged, lovely in the young, and indispensable to the comfort and happiness of a family.—*Ec.*

Errors of Youth.

A GENTLEMAN who suffered for years from Nervous Debility, Premature Decay, and all the effects of youthful indiscretion, will, for the sake of suffering humanity, send free to all who need it, the receipt and directions for making the simple remedy by which he was cured. Sufferers wishing to profit by the advertiser's experience, can do so, by addressing, in perfect confidence, JOHN B. OGDEN, Oct. 15—6t No. 42 Cedar St., New York.

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This Bitters is a compound of Fluid Extracts. The roots and herbs from which it is made are gathered in Germany, and their virtues, in the form of extracts, extracted by one of the most scientific chemists and pharmacologists this country affords. It is

NOT A LIQUOR PREPARATION.

In any sense of the word; contains no whisky, rum, or any other intoxicating ingredients, and can be freely used in families, without any fear or risk of those using it contracting the disease or vice of intemperance. We wish this fact distinctly understood, as many are apt to confound this Bitters with the many others before the public, prepared from liquor of some kind. During the

Cholera Season

Of 1849, this Bitters was extensively used throughout the entire country AS A PREVENTIVE. And we have not heard of a single instance in which this Bitters was used, where the persons suffered from any of the symptoms of Cholera.

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Stomach, Swelling of the Head, Hurried and Difficult Breathing, Fluttering at the Heart,

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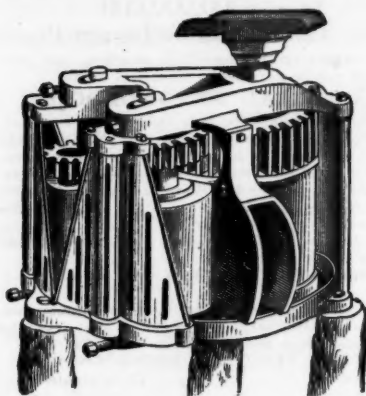
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Dec1-ly

**50,000 CONCORD GRAPE
VINES FOR SALE.**

Price, First Class, per thousand, \$75.

Second Class, " \$50.

Delaware Layers, \$20 per 100; " \$150

Clintons, " \$40

These Vines are very fine. Address,

D. W. KAUFFMAN, Des Moines, Iowa.

Sep. 15-5t

CHOICE

FRUITS, FLOWERS, SEEDS, &c.

B. M. WATSON, OLD COLONY NURSERIES
AND SEED ESTABLISHMENT, PLYMOUTH,
MASS., offers a complete assortment of the
hardest and most productive sorts. The finest
GRAPES, new large CURRANTS, STRAWBER-
RIES, GOOSEBERRIES, BLACKBERRIES,
ROSES, FLOWERING PLANTS, BULBS, LILIES,
SEEDS, &c., may be sent by mail, prepaid, in per-
fect order. FRUIT and ORNAMENTAL TREES
and SHRUBS, EVERGREENS, HEDGE PLANTS,
&c., will be sent by Express or Freight, paid to
Boston. Also, the TRUE CAPE COD CRANBER-
RY, for cultivation in Wet land, or in upland
Gardens, where it produces at the rate of 400 bushels
to the acre: with directions for cultivation. Priced
Descriptive Catalogues will be sent to any address.—
Now is the BEST TIME for PLANTING. The best
way to obtain GOOD FRUITS and FLOWERS, is to send
direct to the Grower. Send for a Catalogue.

Wholesale Catalogues to the trade. Agents wanted.

Oct. 15-2t

**ADIRONDAC GRAPE NUR-
SERY AND VINEYARD.**

Superior Vines at Low Prices.

40,000 ADIRONDAC GRAPE VINES, of one,
two and three years—the earliest and
best Native Grape. Also, Iona, Israella, Delaware,
Allen's Hybrid, Diana, Concord, Crevling, Cayahoga,
Hartford Prolific, Maxatawny, Miles, Roger's
Hybrids, Rebecca, Sherman, Union Village, &c.

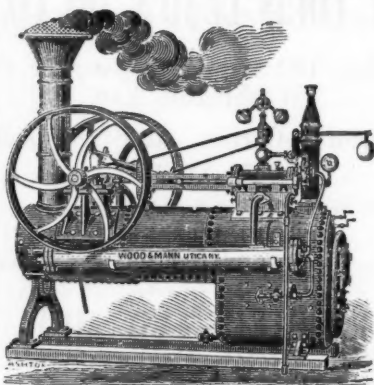
Sample vines securely packed and sent by mail when
ordered. Descriptive and Priced Catalogues sent
on application. **JOHN W. BAILEY & CO.,**
Sep. 15-4t Plattsburgh, Clinton Co., N.Y.

**50,000 Concord Grape
Vines.**

I have for sale 50,000 Concord Grape Vines, at \$70
per thousand. **WASHINGTON MILLER,**
Sept. 15-4t Des Moines, Iowa.

**WOOD & MANN STEAM ENGINE
CO.'S CELEBRATED**

Portable Steam Engines,



From 4 to 35 horse power.

Also, PORTABLE SAW MILLS

We have the oldest, largest and most complete
works in the United States, devoted exclusively to the
manufacture of Portable Engines and Saw Mills,
which, for simplicity, compactness, power and econ-
omy of fuel, are conceded by experts to be superior to
any ever offered to the public.

The great amount of Boiler room, fire surface, and
cylinder area, which we give to the rated horse power,
make our Engines the most powerful and cheapest in
use; and they are adapted to every purpose where
power is required. All sizes constantly on hand, or
furnished on short notice.

Descriptive Circulars with Price List, sent on appli-
cation.

WOOD & MANN STEAM ENGINE CO.,
Utica, N. Y.

Branch Office, 96 Maiden Lane, N. Y. City.
July 1-1y

Imported Dutch Bulbous Roots. J. M. THORBURN & CO.,

15 John Street, New York,

Beg leave to announce to their friends and the Trade, that their Annual Descriptive Catalogue of Dutch Bulbous Roots, for the autumn of 1866; also, a Trade List of the same, are now ready for mailing to applicants, free.

We also take this opportunity to offer the following

BEAUTIFUL COLLECTIONS OF BULBOUS ROOTS.

No. 1.—ASSORTMENTS OF

- | | |
|---|--------|
| 6 Fine Named Double and Single Hyacinths, for pots, glasses or open border, | |
| 1 Polyanthus Narcissus, | |
| 3 Early Tulips, | |
| 12 Fine Mixed Crocus, | \$2.00 |
| 1 Bulbocodium Vernum, | |
| By Mail 14 cents additional. | |

No. 2.—ASSORTMENTS OF

- | | |
|---|--------|
| 9 Fine Named Double and Single Hyacinths, for pots, glasses or open border, | |
| 6 Fine Double Tulips, | |
| 15 Beautiful Named Early Tulips, | |
| 25 Fine Mixed Crocus, | \$5.00 |
| 3 Polyanthus Narcissus, | |
| 6 Double Narcissus, | |
| 3 Bulbocodium Vernum, | |
| 3 Persian Iris, | |
| 12 Double Snowdrops, | |
| By Mail, 38 cents additional. | |

No. 3.—ASSORTMENTS OF

- | | |
|--|---------|
| 18 Fine Named Double and Single Hyacinths, for pots, glasses or open border, | |
| 50 Fine Mixed Crocus, | |
| 24 Beautiful Named Early Tulips, | |
| 12 Fine Named Double Tulips, | |
| 4 Polyanthus Narcissus, | \$10.00 |
| 12 Double Narcissus, | |
| 3 Persian Iris, | |
| 3 English Iris, | |
| 1 Crimson Crown Imperial, | |
| 6 Bulbocodium Vernum, | |
| 25 Double Snowdrops, | |
| By Mail, 75 cents additional. | |

HYACINTHS.

Our Own Selections.

- | | |
|---|--------|
| 12 Mixed Hyacinths (double and single), for pots or open ground, | 1.50 |
| 12 Named Double and Single Hyacinths, for pots, glasses, or open border, | \$3.00 |
| 12 Fine Named Double and Single Hyacinths, for pots, glasses, or open border, | \$4.00 |
| 12 Extra Fine Named Double and Single Hyacinths, for pots, glasses, or open border, | \$5.00 |
| 12 Our very best collection of Double and Single Named Hyacinths, for pots or open border, \$8. | \$8.00 |
| Mixtures, per 100, \$11.00 | |
| By mail at the rate of 22 cts. per dozen additional. | |

MIXED HYACINTHS. For Open-air Culture.

- | | | |
|---|------------|--------|
| In quantities less than 1 dozen, 15 cents each. | | |
| Double Blue, all shades, | per dozen, | \$1.50 |
| Double Red, all shades, | | 1.50 |
| Double White, various colored eyes, | | 1.50 |
| Double Yellow, all shades, | | 2.50 |
| Double, all colors mixed, | | 1.50 |
| Single Blue, all shades, | | 1.50 |
| Single Red, all shades, | | 1.50 |
| Single White, various colored eyes, | | 1.50 |
| Single Yellow, all shades, | | 1.50 |
| Single, all colors mixed, | | 1.50 |
| By mail at the rate of 20 cents. per doz. additional. | | |

MIXED TULIPS For the Garden.

- | | | | |
|-------------------------------------|---------|---------|------|
| | per 100 | per doz | each |
| Fine Mixed Early Single, | \$6 | 75 | 08 |
| Fine Mixed Late Single, | \$6 | 75 | 08 |
| Fine Mixed Bizarre, | \$6 | 75 | 08 |
| Fine Mixed Bybloom, | \$6 | 75 | 08 |
| Fine Mixed Rose or White, | \$6 | 75 | 08 |
| Fine Mixed Parrot, | \$6 | 75 | 08 |
| Fine Mixed Double, | \$6 | 75 | 08 |

By mail at the rate of 6 cents per dozen additional. Also, LILIES, CROCUS, NARCISSUS, &c. &c., for all of which see our Descriptive Catalogue of Bulbs.

J. M. THORBURN & Co.,
15 John St., New York.

Oct. 1—3t

REMOVAL.

St. Louis Agricultural Warehouse and Seed Store,

[Established 1845, by Wm. M. Plant.]

SIGN OF THE GILT PLOW.

NOS. 116 & 118 SOUTH MAIN ST.,

Also, No. 820 NORTH FOURTH STREET (Fronting on two streets), & 823 BROADWAY, SAINT LOUIS, MO.

Plant & Brother,

Wm. M. PLANT.]

Wholesale and Retail Dealers in and Manufacturers' Agents for the Sale of

[ALFRED PLANT.]

Agricultural Implements and Machines

Leather and Rubber Belting, Hose, Steam Packing.

Howe's Standard Scales.

Pearce's Plantation Cotton Spinners.

WOOL CARDING MACHINES, COACH SCREWS, STORE TRUCKS; CISTERN, DEEP WELL, ENGINE AND CHAIN PUMPS; &c.

Krauser's Improved Portable Cider Mill and Press.

Sugar Cane Mills and Juice Evaporators.

Cotton Gins, Hand and Power Corn Shellers.

Smith's Patent Cast Cast-Steel Plow.

Young's and Tobey & Anderson's Peoria steel Plows.

STAFFORD'S 2-HORSE SULKY CULTIVATOR.

Selby's double check row CORN PLANTER.

McGaffey's Double-Check Row or Drill Corn Planter.

Kirby's American Iron Reaper and Mower.

Sulky and Revolving Horse Hay Rakes.

PALMER'S EXCELSIOR HORSE HAY HOISTING FORK.

Palmer's Revolving Hay Stacking Machine.

Also, a full supply of Warranted Fresh and Genuine

GARDEN, GRASS & OTHER SEEDS, growth of 1865.

All of which we offer at the lowest possible CASH PRICES.

Call and get Illustrated Catalogue furnished Gratis.

St. Louis, Mo., Feb. 1866.

PLANT & BRO.

Bloomington Nursery.

15TH YEAR — 8 Large Green-Houses, 275 ACRES FRUIT, ORNAMENTAL AND NURSERY STOCK, a very complete assortment, including

500,000 APPLE, with 100,000 1 year; 1000, \$50.
150,000 PEAR, 50,000 1 year standard; 1000, \$120.
500,000 GRAPE, largely Concord layers; Catawba, Clinton, Delaware, Hartford, Ives, Iona, Rogers, &c.
500,000 APPLE STOCKS, 1 and 2 year, \$10 & \$15.
500,000 APPLE ROOT GRAFTS, in Winter; 10,000, \$100.

150,000 STOCKS, Quince, Pear, Plum, Cherry, &c.
10,000 RHUBARB "WINE PLANT," 100,000 Strawberry, 40 sorts.
1,000,000 OSAGE ORANGE, 1,000 1st class, \$3; 200,000, \$450.

500,000 EVERGREENS, mostly medium and small.
150,000 ORNAMENTAL TREES, large and small.
2,000 ALTHEA, superb, double named; 100, 2 feet, \$12.

10,000 Euonymus, Honeysuckle, Lilac, Snowball, Spirea, Syringa, Tamarix, Wigelia, all fine, medium size; 100, \$6 to \$12.

20,000 ROSES, all classes, old and new sorts.
20,000 HARDY BULBS, Tulips, Hyacinths, Greenhouse Plants, &c.

Catalogues, wholesale and retail, sent for one red stamp each.
F. K. PHOENIX.
Bloomington, McLean County, Illinois.

Oct. 15—4t

THOROUGH-BRED SPANISH SHEEP FOR

SALE—I have for sale, of pure Spanish Stock, a FEW EWES and BUCK LAMBS. They can be seen at my premises, two miles south of Nilwood, Chicago and St. Louis R. R. The lambs are sired by the celebrated Infatado Ram "Prince." Orders promptly filled by express, properly boxed, and satisfaction given.
R. H. BALLINGER,
Oct. 1 Nilwood, Macoupin Co. Ill.

GRAPE VINES.

For sale about 40,000 well-rooted grape-vine layers and rooted cuttings, comprising all the Hardy varieties, such as Norton's Virginia Seedling, Concord, Hartford Prolific, Clinton, &c.

EISENMAYER & BRO.,
Sept. 1. Mascoutah, Ills.

CASHMERE GOATS.

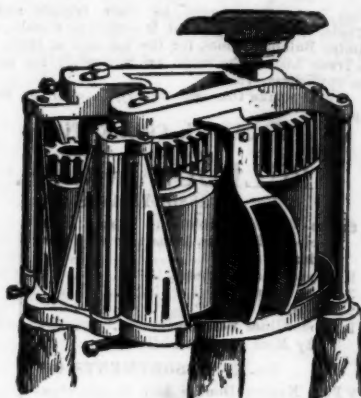
I have about 30 goats for sale, some of them three-quarter Cashmere, some half Cashmere, and some of them common goats. To any one who desires to breed the Cashmere goat, a rare chance is now offered. I am about converting the farm at which I keep them, into a fruit farm, which is my reason for selling them. Or I would let them to any responsible person on shares for a term of years. For further particulars, address
NORMAN J. COLMAN,
St. Louis, Mo.



Barnum & Brother,
Missouri Agricultural Warehouse
And Seed Store,

No. 25 South Main St.,
Sign of the **YOK** hangs di-
rectly over entrance, 3 doors north
of Walnut Street.

ST. LOUIS, MISSOURI.



Wholesale and retail dealers in Agricultural Implements and Machines, Garden, Grass & Field Seeds.
Agents for **Celebrated Victor SORGHUM Mills and Cook's SORGHUM Evaporators.**

These Mills and Evaporators have universally received the stamp of public approval, and we invite all interested to call and examine.

ALSO AGENTS FOR

CHAMPION of OHIO Reapers
and Mowers.

BUCKEYE Wheat Drill.

BUCKEYE Cider Mill.

BUCKEYE Cultivator.

VANDIVER'S Mo. Corn Planter,

ALLEN'S COTTON PLANTER,

**PITTS' Threshers and Horse
Powers.**

Also on hand various patterns of
Cutting Boxes, Corn Shellers,
Cotton Gins, &c.

**MISSOURI FAMILY WASHING
Machine and Wringer.**

Barnum & Bro., 25 South Main St., 3 doors north of Walnut.

NATIVE WINES.

Norton's Virginia, Concord, Herbmom, Delaware, Cunningham, Cassady, Clinton, Hartford Prolific and Catawba, by the case, containing 1 dozen bottles each. Norton's Virginia, Concord and Catawba, also by the keg, barrel or cask.

As these wines were all grown on my own vineyards, and carefully managed, I can warrant them to be of superior quality and to give general satisfaction.

Sample cases, containing one dozen bottles assorted of all the above varieties, will be put up if desired.
Address, **GEO. HUSMANN, Hermann, Mo.**

PRICE LIST OF WINES,

Grown by

**GEORGE HUSMANN, GRAPE HILL VINE-
YARDS, NEAR HERMANN, MO.**

In cases of one dozen bottles each—

Norton's Virginia, first quality,	\$18.00
Concord, first quality,	12.00
Concord, second quality, very good,	10.00
Herbmom, first quality,	18.00
Delaware, first quality,	24.00
Cunningham, first quality,	18.00
Cassady, first quality,	12.00
Clinton,	10.00
Hartford Prolific,	16.00
Catawba, first quality,	10.00
Catawba, second quality, very fair,	\$ 8.50

In casks, in quantities under forty gallons—

Norton's Virginia, first quality,	\$4.50 per gallon.
Concord, first quality,	3.00 "
Concord, second quality,	2.50 "
Catawba, first quality,	2.50 "
Catawba, second quality,	2.00 "
Herbmom, first quality,	4.50 "

In quantities over forty gallons—

Norton's Virginia, first quality,	4.00 "
Concord, first quality,	2.50 "
Concord, second quality,	2.00 "
Catawba, first quality,	2.00 "
Catawba, second quality,	1.75 "

As these wines were all grown on my own vineyards and carefully managed, I can warrant them to be of superior quality, and have no doubt but they will give general satisfaction.
GEO. HUSMANN.

3j-1f

DR. JACKSON'S BALSAM OF LUNGWORT.

The great remedy for Coughs, Colds, Sore Throat,
Hoarseness, Spitting of Blood, Soreness of the

CHEST AND LUNGS,

AND

Consumption.

This old tried medicine stands higher in reputation than all others; its effects are prompt and certain, and it has cured more bad cases than all other medicines put together. Don't fail to give it a trial, and be convinced, as delays are dangerous.

Price One Dollar a bottle.

COLLINS BROTHERS,

ST. LOUIS, MO.

SOLE PROPRIETORS.

ITCH! ITCH!!

SALT
RHEUM! **DR. JACKSON'S
ITCH
OINTMENT.** SALT
RHEUM!

Will cure the **ITCH** or **SALT RHEUM.**

in a few applications. It also cures prairie Scratches, Chilblains, Ulcers and all Eruptions of the skin where other remedies have been tried in vain, cures speedily and thoroughly. Price 50 cents a box. Sold by all druggists. By sending 60 cents in a letter to **COLLINS BROTHERS, S. W. cor. 2d & Vine streets, St. Louis, Mo.,** it will be sent by mail free of postage.
April 15-ly.

CHESTER WHITE PIGS.

A few pairs of Chester White Pigs on hand, boxed and shipped to any address, without further charge, on receipt of thirty dollars per pair or fifteen dollars each either sex. Also, some crosses of the Yorkshire and Chester White at same price. Address,

NORMAN J. COLMAN, St. Louis, Mo.

TEXAS OSAGE ORANGE

SEED—New, well cleaned and **WARRANTED GOOD.** Price, \$1 per pound; \$20 per bushel; 6 bushels for \$100; for 10 bushels and over, \$15 per bushel. Old seed at half price. Cash to accompany order. We will also contract to grow No. 1 Osage Plants next season for \$1,000 per million, to be delivered in the fall at the nursery—25 cts. per thousand to be paid at time of contracting.

We are devoting special attention to the importation of the seed and growing the plants of the Osage Orange.

Apple Root Grafts put up to order, \$10 per 1,000; 12,000 for \$100. Address, **W. H. MANN & BRO.,**
Box 1, Normal, McLean Co., Ill.

P.S.—50 bushels Apple Seed wanted. Oct. 15—4t

Victoria and Linnæus Rhubarb, or Wine Plant.

Also, **CAHOON'S** and **SCOTCH HYBRID RHUBARB.**

For sale by

C. D. STEVENS,

Oct. 15—4t

Mendota, LaSalle Co., Ill.

GIVEN CAMPBELL,

Attorney at Law,

No. 5, Commercial Place,

NEW ORLEANS, LA.

REFERS TO—

W. L. Ewing. D. A. January. Rob't Campbell & Co.
ocly N Colman.